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Great hopes, good jobs, affordable investments, and becoming
a real person: education decisions of the urban poor in Dhaka,
Bangladesh

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Submitted for the Degree of Doctor of Philosophy

University of Sussex

September 2012

Statement

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

Signature:

UNIVERSITY OF SUSSEX

DPHIL IN EDUCATION

Great hopes, good jobs, affordable investments, and becoming a real person: education decisions of the urban poor in Dhaka, Bangladesh

Summary

Urban poverty is rising as economic development is accompanied by rural-urban migration and the majority of the world's population becomes urbanised. Policymakers and researchers are only now coming to grips with the implications for education. Educational deprivation still tends to be seen as a primarily rural problem, especially in a historically rural economy such as Bangladesh's. Little is known about educational access and outcomes for the urban poor, what resources they need to use to get children admitted to school and keep them there, and what benefits they can expect to get in return.

This thesis examines how poor households living in slums of Dhaka city, Bangladesh, make decisions about their children's education. In particular it asks what aspects of education are valued by parents and children; what the costs of education are; and how these costs and valued outcomes combine to influence the decisions that parents and children make with regard to school. The study is based on a survey of 1599 households and in-depth interviews with 34. Quantitative methods are used to examine associations of different household and individual characteristics with educational outcomes, and qualitative methods to explain the underlying processes.

The data show that the slum environment is far from being an easy one to live in, and most households live below the poverty line. They face high rents and food prices, are time-pressed, and have limited support from friends and relatives. Households had to draw on their resources to cover the costs of school, support their children's learning, and manage the relationship with the school. Direct financial costs of education were substantial compared to income. More than half of children in primary school took private tuition, despite the low incomes of their parents. There were also important opportunity costs. Children could work instead of going to school, especially at older ages.

Parents and children valued a range of aspects of education. They aspired to professional or formal-sector employment and saw education as key to this, but were ambivalent about whether a small amount of primary education would bring substantial benefits. School education was enjoyed in its own right and also seen as the way that one 'becomes a real person,' respected in

the community and by a future spouse, with correct moral and social behaviours. It was seen as useful, if not strictly necessary, for a girl to marry and fulfil her expected future role as a wife and mother.

Households had to balance these valued benefits of education against the resources they needed to use for it, and the resulting decisions – to enrol in school, to stay in or drop out, to spend more, and to go to a government, non-government organisation, or private school – were strongly influenced by the wealth, location, social connections, and education of the parents. Children from wealthier households tended to stay in school longer, but location was also important, probably reflecting the different availability of schools in different slums. Drop-out decisions were sometimes made by children themselves, especially for boys.

The thesis concludes by summarizing the findings, reflecting on the conceptual model used, and putting forward policy implications. It argues that the framework based on a mixture of livelihoods and human capital theory is broadly a useful one for considering education decisions. Among the priority areas for education policy for the urban poor, it highlights the lack of government provision of school places, problems caused by evictions and uncertain legal status of slum dwellers, poor coordination between government and non-government organizations, and the inequitable effects of widespread private tuition.

Acknowledgements

This doctoral research was conducted in part through the Consortium for Research on Educational Access, Transitions and Equity (CREATE), supported by the UK Department for International Development (DFID). I am very grateful to my doctoral supervisors, Keith Lewin, Pauline Rose, and Ricardo Sabates, for their support and advice; to the team of research assistants who did most of the hard work of conducting, transcribing and translating the survey and interviews, and to BRAC University Institute of Educational Development, who hosted me in Bangladesh, and in particular Altaf Hossain, Mohammad Abul Kalam, and Manzoor Ahmed, who managed the process and provided invaluable support; to my family and friends, for their love and help during the long process of doing the research and writing about it; and to all of the parents, children and others who took the time to answer our questions.

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Acronyms

BA	Bachelor of Arts (undergraduate degree)
BRAC	formerly, Bangladesh Rural Advancement Committee
BU-IED	BRAC University Institute of Educational Development
CREATE	Consortium for Research into Educational Access, Transitions and Equity
CUS	Centre for Urban Studies (Bangladesh)
DHS	Demographic and Health Survey
GPS	government primary school
HIES	Household Income and Expenditure Survey
HSC	Higher Secondary Certificate
JSC	Junior School Certificate
MA	Master of Arts (postgraduate degree)
MFA	Multifibre Arrangement (an international trade agreement)
MICS	Multiple Indicator Cluster Survey
NGO	non-governmental organization
NGPS	(non-registered) non-government primary school
RNGPS	registered non-government primary school
SSC	Secondary School Certificate
UK	United Kingdom of Great Britain and Northern Ireland
UN-HABITAT	United Nations Human Settlements Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USA	United States of America

Abbreviations

Tk.	Bangladeshi taka (currency)
US\$	American dollars

Exchange rate

Official exchange rate (2008): 100 Bangladeshi Taka = US\$1.46

Purchasing power parity conversion rate (2008):

100 Bangladeshi Taka had the same purchasing power as US\$3.92

(Source: databank.worldbank.org)

Chapter 1. Introduction and research questions

The world's population is becoming increasingly urban. While overall poverty, and the number of rural poor, both fell during the 1990s, the rate of urban poverty stagnated and the absolute numbers of urban poor people actually rose (Ravallion et al., 2007). But policymakers in developing countries and researchers have not yet come to grips with the implications of growing urban poverty for education. Educational deprivation still tends to be seen as a primarily rural problem, especially in an historically rural economy such as Bangladesh's (Ardt et al., 2005). Relatively little is known about educational outcomes for the urban poor, what resources they need to use to get children admitted to school and keep them there, and what benefits they can expect to get in return.

This thesis focuses on slums in Dhaka, Bangladesh. The population of Dhaka was estimated at around 12 million in 2007 (World Bank, 2007, p. 101), and around one-third of the city's population are thought to live in slums (CUS et al., 2006). It is doubtful whether slum populations have shared in the general educational progress in Bangladesh that saw official primary school net enrolment rates reach 87% by 2005 (UNESCO, 2009), or even whether they are included in these official statistics. Past research has suggested that service delivery in Dhaka's slums is very limited (Baker 2007; Rashid and Hossain, 2005).

The thesis will argue that the urban poor are vital to the city's industrial development, which in turn is vital to the economy of the whole country. They should be seen as (economically) important targets for investment, as well as (politically) people with rights. Instead, they are demonised or ignored. Based on fieldwork in 2008 in four slums in Dhaka, the research presents data on primary school enrolment, drop-out, school availability and expenditure, helping to fill some of the large knowledge gap concerning education for children from slum areas.

The central aim is to understand more about how households in slums make decisions about their children's education. The size and dense population of Dhaka make it possible for a large number, and a wide range, of schools to operate side-by-side, including those run by the government, by non-government organizations (NGOs), and those run privately for profit. But there is little research on the extent to which poor urban groups can make choices among the range of schools surrounding them. I want to understand how much choice about education households in slums actually have, what they value about education, and whether and how they can improve their livelihoods by exercising such choice. Are they forced into private schools because no public schools are within reach of their areas? Or are they excluded from private schools by unaffordable fees? Or excluded from education altogether by some combination of these and other factors?

There is evidence from other developing countries on private, for-profit schools being used by some poor households in cities such as Nairobi (Oketch et al., 2008) and Hyderabad (Tooley and Dixon, 2005). The suggestion is that a basic, relatively cheap form of private schooling has arisen to meet the need left unfulfilled by a lack of, or poor quality of, government schools. In previous research, however, there has been no suggestion that this has happened in Bangladesh, where private schooling is generally still seen as the preserve of the urban elites (e.g. Imam, 2005). This research tries to uncover the extent to which private education is available and used by the urban poor in Dhaka, in order to get a better idea of what the consequences might be of expanded private provision.

There is also recognition of the huge role played by NGOs in Bangladesh, and some evidence suggesting that NGO-run schools provide better quality education. But it has been argued that Bangladesh is over-reliant on NGOs to reach disadvantaged groups (Ardt et al, 2005). How do poor households themselves assess these schools? Are they put off by the fact that they are still essentially ‘schools for the poor’, a separate educational track with limited scope for entering the formal school system?

Household schooling decisions are often examined using economic models that portray the decision as a trade-off between future wage returns and the current use of time by a child who could otherwise be working. These models tend to ignore the wide range of resources, including power, social connections, money and the time and effort of both parents and children, that the household needs to draw on in order to access education. It is also unclear in such models how households could in practice assess the future wage returns, in a country like Bangladesh with a rapidly and unpredictably changing labour market. The possibility that there are other benefits to education, apart from future wage returns, is also rarely taken into account.

This research aims to broaden the understanding of education decisions by borrowing from livelihoods research and looking at the full range of resources that a household may have to draw on to invest in schooling, and the full range of benefits that they expect to get in return, including those that will improve the household’s livelihood in future. This makes it possible to put education in the context of livelihoods strategies – the more or less conscious ways that households use their resources to improve, or at least maintain, their livelihoods. Do they invest in education in the hope of building resources that will improve livelihoods over the longer term? If so, to what extent are these strategies likely to be successful?

Quality of education is often lacking in Bangladesh schools (Ahmed et al., 2005), but there is little research on how parents and children themselves perceive and understand quality. In cases where parents themselves have had little schooling, distinguishing school quality is likely to be

difficult. This research examines how these perceptions, along with other aspects of particular schools that are valued, affect households' decisions about which school a child should go to.

There is also relatively little education research in developing countries that takes children's own perceptions on school into account, even though their perceptions may play a key role in whether or not they stay in school. In the present research, children's own agency in starting school, staying in school, and attending school is taken seriously, the ways in which they participate in the decision process are explored, and their views on the benefits and costs of education are sought.

In short, the research aims to answer the following main research questions, drawing on a survey of 1599 households, and in-depth interviews with 34:

- What aspects of schooling are valued by parents and children, and how do these vary between households (for instance by income, wealth, and parental education and occupation) and between types of education provision (government, NGO, or private school; and private tuition)?
- What are the costs of schooling, and how do these vary between households and types of school?
- How do these valued benefits and costs combine, and interact with the expectations and aspirations of the parents and children, to determine schooling decisions?

The rest of this thesis is structured as follows. In chapter 2, I outline a framework for conceptualizing education decisions. It is based on a mixture of livelihoods approaches in development studies with human capital theory in economics. The framework is deliberately broad; I argue that households are likely to draw on a wide range of economic and other resources to invest in education, and have a range of economic and other reasons for doing so.

In chapter 3, I review the literature on education and urban poverty in Bangladesh. I draw on the available statistics to describe the state of educational provision, then review previous studies on urban poverty, slums, and rural-urban migration to understand what resources the urban poor have, how they use these for education, and how they stand to benefit in return.

Chapter 4 describes the methods and methodology. The study uses a pragmatic mixed methods approach, with quantitative methods used to examine associations of different household and individual characteristics with educational outcomes, while qualitative methods are used more to understand the processes through which these correlations might be explained.

Chapters 5 to 8 describe the results of the study, drawing on both quantitative and qualitative analysis in each case. Chapter 5 looks at what resources households in the sample have or can access. Chapter 6 describes how they use these resources for education. Chapter 7 considers what benefits they can get from education. Chapter 8 looks at a number of educational decisions in turn: enrolment at the right age, never-enrolment, drop-out, how much to spend, and what type of school to go to; uses regression analysis to examine how these decisions depend on household characteristics; and combining these results with the qualitative analysis attempts an explanation of how decisions are made.

Chapter 9 summarizes the results, lists some limitations of the study, and gives what I see as the implications for policy and programmes.

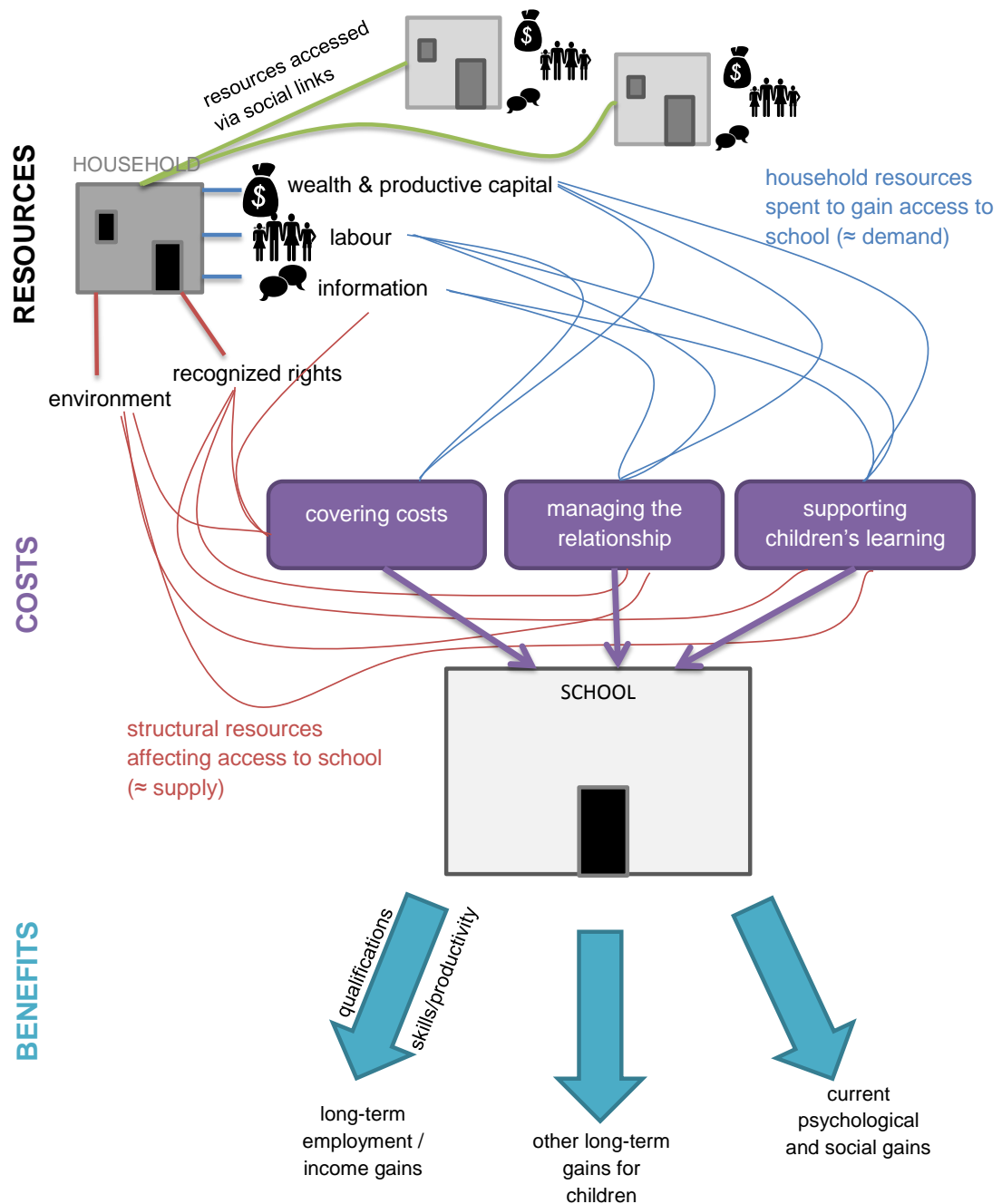
Chapter 2. Conceptualizing education decisions – a framework

How can we make sense of households' decisions surrounding participation in education? In this chapter, I describe the broad framework I have adopted for this research, and which I will use to analyse the results of my literature review and fieldwork findings. It is based on the idea that households have various resources available to them, use some of these for education, and expect or hope to get short- and long term benefits from education. For a child to go to school and stay in school depends on the 'supply side' – schools being available and accessible – but also on the successful execution of a number of steps by the parents and the child. Parents may have to pay fees, the child has to spend the time in school rather than working, and parents have to provide an environment in which the child can learn. Difficult decisions may be involved in this process because these steps each require the dedication of resources to education, and poor urban households tend to lack these resources. Indeed, the decision may in some cases be so constrained by the economic, social and political situation that it is difficult to see what members of a household can do to influence the outcome. For the decision to be a positive one with respect to education, the household must expect there to be benefits, especially long term ones, that make the investment of resources worthwhile.

The framework I develop here for understanding these decisions is, roughly, an amalgam of human capital theory and the idea of education decisions being shaped by their rates of return (Becker, 1964; Becker, 1965; Psacharopoulos and Patrinos, 2004; Schultz, 1960), with livelihoods models used to understand how (mainly rural) poor households in developing countries manage their resources to avoid destitution and improve their long term economic and social positions.

Figure 1 shows how the different elements of the conceptual framework link up. Households have resources at their disposal that reflect their own asset ownership (particularly of wealth, and labour), their social position and relationships, and their physical and political environment, which encompasses the availability and accessibility of schools. They may access these resources directly, or through their relationships with other households. Their use of the different types of resource to gain access to education can be categorised under three broad headings: they need to cover the direct and indirect costs of school, manage the relationship with the school, and support the child in his or her learning. In return they can hope to get a number of benefits, including increased wages when the child starts working, and shorter-term psychological and social benefits.

Figure 1. The conceptual framework: how households use resources for education



This framework thus retains the assumption from standard economic models, of rational households that maximize their valued positive outcomes net of costs. But the range of benefits and costs to be taken into account is greatly expanded. In particular, I draw attention to the range of resources that a household needs for its livelihoods but also for education. There are competing demands on these resources – for instance, a household needs money both for food and for paying school costs – that represent the opportunity cost of schooling to the household. On the other side, the benefits may include a longer term payback in terms of some of these same types of resource, although I do not presume that all of the valued benefits of education can be reduced to an increase in livelihoods resources. Ultimately the aim is to ask how benefits

and costs are evaluated by parents and children themselves rather than to make assumptions about this. Similarly, as I will discuss further below and in chapter 4 (on methodology), the assumption of rationality is only a starting point, and I try to take a reflective stance which will allow the data to be used to question such assumptions, rather than rigidly retaining the assumptions and fitting the data into them.

The model also deals with households as the main unit of analysis. As I will discuss in section 2.4.3 below, this means paying relatively little attention to the processes of conflict or cooperation that may occur within a household, as well as to the possible movement of people between multiple households. The rationale is that the household is a useful unit of study for understanding inequalities within a section of a society; the partial or full sharing of income and assets among household members makes it more difficult to analyse these inequalities at the individual level. There is also a methodological concern that it is difficult for an outsider researcher to obtain good information on some within-household processes; for instance conflict between household members may be a sensitive topic. Nevertheless, the model has the potential to be expanded further to include within-household processes, and where appropriate I do examine individual as well as household-level characteristics – especially, gender and age – in analyzing data for this study; I include the size and number of children in a household among its characteristics to be analyzed, since any resources it has must in some way be divided between its members; and to the extent possible I consider the different roles of individuals within each household in making decisions.

In the following sections, I first set out a classification of the types of resource to which households have access, and which are needed both for their livelihoods generally and for education. I then consider what steps parents and children have to take for the child to go to, and succeed in school, and what resources are needed to accomplish each step, under three broad headings: paying school costs, managing the relationship with the school, and supporting the child's learning. I then list the benefits from education that could make it a worthwhile investment. Finally, I argue that households can be modelled as weighing up the costs and benefits to make educational decisions.

This chapter draws on illustrative evidence from developed and developing countries but the aim is mainly to develop a conceptual framework for use in the rest of the thesis. The following chapters bring in more concrete data, applying the models and concepts from this chapter to poor urban households in Bangladesh, by reviewing the literature (Chapter 3) and analysing my own data (Chapters 5-8).

2.1. Household and structural resources

This section sets out a classification of resources that households have available to them, and which they use both as part of their livelihoods strategies, and more specifically to invest in education. It draws on rural livelihoods frameworks (Bebbington, 1999; Ellis, 1998; Ashley and Carney, 1999), and Rakodi's urban livelihoods framework (Rakodi, 2002); the extension by Leach et al. (1999) of Sen's (1981) entitlement theory; and Bourdieu's forms of capital (Bourdieu, 1986). As illustrated in Figure 1 above, households have resources such as wealth and labour, over which they have direct control and which they can draw on directly to invest in education. But education also depends on the 'supply side' or structurally determined resources available to the household, reflected in the availability of schools, a physical environment that makes it possible for children to reach those schools, and a political environment where children's right to access education is recognized by teachers, headmasters, and local government. Households might not have much control over these structural aspects, but they are relevant because they differ from one household to the next, and interact with other resources to affect educational decision-making.

I categorize these resources as: wealth and productive capital, labour of household members, information, environmental resources, recognized rights. The following sub-sections describe what I have in mind by each of these. A sixth 'resource' is also described: socially mediated access to the other resources. This is meant to capture the ways that households may be able to access, through their relationships with others, resources that they do not possess directly. In each case, I describe in general terms how households might combine these different resources and manage the competing demands on each. This provides context for the following section (2.2), which describes more specifically how households put all these resources into action for the purposes of education.

2.1.1. Wealth and productive capital

In most societies wealth held in the form of money or goods is an important resource for livelihoods. Some of the goods may be productive in themselves; for instance, a sewing machine, a vehicle, and the house itself all help the household to increase its income. Other goods can be sold or exchanged.

Poor urban households in developing countries, almost by definition, have very little wealth. They pay for food and shelter rather than owning land and property or producing their own food (although some do engage in urban farming; see Maxwell et al., 2000). Rickshaw drivers usually hire their rickshaws rather than owning them. Nevertheless, housing may be an important asset that generates income, for instance through home-based production (Moser, 1998). For those who do own their own dwellings, rising scarcity of urban housing might make

this a profitable investment were they able to cash it in. The ability to accumulate some savings or goods that can be sold may be important for avoiding destitution in the event of an unexpected fall in income.

2.1.2. Labour of household members

Wealth and productive assets may play an important role in maintaining livelihoods, but labour tends to be the most important asset for the urban poor (Moser, 1998). This is both because they own little wealth and because the urban economy is highly commoditized; a reliable stream of income to pay for food and shelter takes on greater importance than in rural areas. When a household's income declines or expenditures increase, for instance due to price changes, it will often cope by increasing the number of workers; women who previously carried out unpaid domestic work enter waged work, and children also enter the labour force (Moser, 1998). This effect may be partially or entirely offset if wages are generally falling or work opportunities becoming more scarce, as for instance when the whole economy is in recession.

Education draws on the household's labour because labour is needed for income to meet school costs, because school takes up children's time that could otherwise be spent working, and because adult household members (mainly parents) spend time supporting their children's education in various ways. So when we count the total costs of education we have to include these opportunity costs, that is, the value of the time if it was used differently. That value in turn depends on what options for leisure and income-earning are available. Adult labour has a price in labour markets that will depend partly on their human capital – their education, prior work experience, health and strength – and partly on the current macroeconomic environment, which includes international prices, the number of similarly-qualified workers able to compete for jobs, and many other factors. Children's work both within and outside the home may be important for the household's livelihoods. There are trade-offs among work done by different household members; for instance a child looking after younger siblings may free their mother to work for income outside the home. Children's earning opportunities outside the home depend partly on the law and political environment, such as whether child labour is legal and whether school is compulsory.

I will describe in more detail below how labour is used for schooling. At this point I will just highlight some important characteristics of labour for the rest of the analysis. First, labour can vary greatly between households, depending on demographics – especially the number of working-age adults who are physically able to work and in good health – and skills, qualifications and/or social connections enabling the working members of the household to get

good jobs¹. Second, labour is subject to shocks, such as the death or illness of a household member, or job loss (for examples in the context of urban poverty see Maxwell et al., 2000), and households are not always able to smooth their consumption by saving or borrowing. Third, an improvement in labour market conditions can either increase or lower the amount of wage labour the household provides. They may choose to work less and continue earning the same, or work more and earn more. Households will sometimes have incentives to withdraw children from school to work because there are good earning opportunities. Aspects of the environment and labour market may also place high demands on adult time – for instance, if there are relatively good earning opportunities but they require you to work long hours or commute long distances – benefiting the household in terms of income and food security, but leaving little time to support children’s learning.

2.1.3. Information

Along with wealth and labour, households also need information to manage their livelihoods well. Although it is acquired, shared and used in quite different ways from wealth or labour, information may also be available in limited supply and possessed unequally by different households. For the purposes of this research I am interested mainly in two types of information. Firstly, information about schools: which schools are nearby, how much they cost, and how good they are. Secondly, information about the labour market: what a child can expect to earn when he or she grows up, what job opportunities will be available, and how this will depend on his or her level of skills and qualifications.

Information is usually seen as a ‘non-rivalrous’ good, meaning it can be passed on without losing its value to the original holder. Telling a neighbouring family about a good school nearby does not prevent you from sending your own children there. But it is conceivable that some parents would be systematically excluded from information about school quality, for example, out of fears that the good schools would be over-enrolled and the quality decline. Households may also have limited means for assessing whether the information on offer is right or not. For instance, traditional rote-based learning may be labelled as good quality. Parents faced with this putative information, especially if they have themselves not been to school, lack criteria against which to assess or question this notion of quality.

¹ Household members’ health and education levels may in general affect their efficacy in making use of other resources. Psychological characteristics such as confidence and motivation may also affect efficacy, and may themselves be influenced by the material conditions of the household. Material deprivation can have detrimental effects on psychosocial well-being, including through a sense of social isolation and marginalization (Narayan, 2000; Singh and Galappatti, 2006). In practice, it may be difficult to distinguish the effects of psychological states and objective conditions – for instance, to disentangle the feeling of disempowerment or low self-esteem from the condition of having no power in one’s community or society. The focus of the present research on parents’ and children’s own perspectives means that the data is likely to reflect a mixture of the objective effects of being marginalized, and the psychological consequences in terms of identity and self-esteem.

It should not be assumed that poor households necessarily lack information. Andrabi et al. (2007) find that parents, including illiterate ones, in Punjab, Pakistan, were well informed about the quality of schools and teachers and about their children's school performance. However it is reasonable to assume that they need to put effort and time into getting this information and that there may be variation in parents' ability to do so. In the UK, Ball (2003) describes the intensive work that middle class families do to find trustworthy information on schools as part of strategies for securing their children's futures. As I will argue in chapter 3, in Bangladesh poor households lack the relationships and prior understandings that would allow them to seek out the types of information that the middle classes and the elite would use to strategize for their children.

2.1.4. Environmental resources

The resources considered so far can be seen as properties of individual households, although as I have said, their value depends heavily on external circumstances (for instance, current wage levels in the labour market). But the area in which a household lives can also help or hinder it in carrying out valued activities. I consider as environmental resources those aspects of the physical environment – such as electricity cables, school buildings, safe and non-flooded roads – that offer (or fail to offer) the household a flow of benefits in terms of its livelihoods and education. Environmental resources interact with the household's individual assets; for instance, a large and busy road might make the journey to school easier for car owners but harder for everyone else.

In many cases there is little people can do to improve their environment other than by moving to a new one. Where they are able to change their environment it is likely to be through collective action, for instance installing better drainage in a frequently-flooded area or lobbying government for a new school.

2.1.5. Recognized rights

While the physical environment is an important resource, potentially more important still is the household's political environment, or more precisely its power relationships in the form of the rights it holds and the degree to which these rights are upheld by others. Households differ in the claims they can make on public or communal institutions such as the school system.

Formally, they hold the right for their children to have access to school, according to international agreements and national laws. But for this entitlement to be made real, they need the assent of a long chain of powerful actors, from national government, to local politicians, police and even local gang leaders. Headmasters, teachers, and parents of other children at the school can also act to deny this right. Each of these actors may be acting in accordance with social norms that enforce, or allow laxity with regard to, rights or laws. A right recognized only

on one level – for instance, a headmaster turning a blind eye to let a pupil enrol without the legally required certificate – is likely to be less reliable than one recognized throughout the hierarchy of powerful actors.

Thus I separate out *rights which are recognized and enacted* as an additional resource that households may have at their disposal. To a large extent, this is structurally determined rather than a characteristic of the individual household. By definition, this type of resource depends on other actors recognizing and helping to make real the rights that are formally embodied in law, morality, or other institutions². But it is also true for the other types of resource discussed here, that their value depends on actors outside the household. Moreover, households can work on, or invest in, increasing their recognized rights, for instance, by bribing officials or by building relationships with powerful local actors. So it makes sense to think of this as a resource that can in some circumstances be built up, at a cost, and drawn upon in order to gain access to education.

Recognition and enactment of a household's rights affect its livelihoods broadly, as well as its access to education. In the preceding discussion, for instance, I assumed that people are able to hold wealth in the form of goods or money. In reality the ability to hold private wealth depends on respect for private property and security in the area where they live. For a household with no access to banking services, living in an environment with high crime rates, and unable to rely on the police for help if they become victims of crime, it might not make much sense to save up money. Even ownership of a house may be insecure, at risk from slum clearances or because tenure is not officially recognized.

Importantly, recognized rights function with respect to institutions, which following Leach et al. (1999) I define as 'regularized patterns of behavior that emerge from underlying structures or sets of "rules in use."' (p. 238). Organizations such as schools exist because of a set of working rules governing their behaviour, that define them and give them meaning. The rules will vary depending on whether they are run for profit, as a public service for everyone, or as a charitable act for the poor, and on whether education is seen as a right or a privilege. Other institutions such as money or the law can exist without a specific single organization embodying them. Institutions are not set in stone; they are maintained by people's active investment in them (Berry, 1989, 1993, cited in Leach et al., 1999). Different households and different social

² The term rights is not here intended to carry any normative weight. For instance, the 'right' to receive better service upon paying a bribe, if recognized, would potentially be a useful resource to an individual household, even if it is deplorable for society as a whole.

groups are accorded different rights with respect to these institutions, in a way which reflects the interests vested in the institutions³.

Whether a household's rights are respected can also depend on whether it can present the right way of speaking or dressing, or the right certificate; in other words on the household's "cultural capital" (Bourdieu, 1986). Cultural capital is "constantly required to prove itself" but can also be institutionalized in the form of qualifications (Bourdieu, 1986, p. 110) and embodied in ways of presenting oneself, using language, forms of social etiquette and competence, and confidence and self-assurance (Morrow, 1999). Cultural capital has a particular role to play in crossing "borders" (Stanton-Salazar, 1997) between different social worlds, for instance between the school and a child's family life. These borders can sometimes be stressful and obstructive. Negotiating them takes work and requires one to know how to behave, which partly happens through having been socialized into specific "*institutional discourses* that regulate communication, interaction, and exchange" (Stanton-Salazar, 1997, p. 11, italics in original). It is in this way that recognized rights, although largely external to the household, might in the medium to long term be built up – by learning the right ways to behave or speak that, in some institutions, will be seen as proof of entitlement to one's rights. There is a grey area here between information and recognized rights; appropriate behaviour requires knowledge and understanding of the institution in question and its associated discourses.

2.1.6. Socially mediated access to other resources

Each of the above resources may be held directly by the household, or accessed indirectly, through their relationships with other people. The capacity to access resources held by others is often thought of as a resource in itself, as one of the meanings of the commonly used term 'social capital'. It depends on the strength, type and number of relationships the household has, social norms, and levels of trust in the community. It is limited by the amount of resources held by actors with which the household has relationships of some kind. From the point of view of the individual household, accessing resources through social links may not be free of cost. It may tie the household or individual up in a complicated and unspoken pattern of expectations of reciprocity. Building social relationships often requires a large investment of time before yielding benefits.

³ In this way the absence of respected rights is a form of *social exclusion*. Social exclusion approaches to poverty have "attempted to draw attention to social and patterned processes of 'shutting out', to stigmatisation, to alienation, to the monopolisation, or sequestration of scarce resources – sometimes by, and for the benefit of more advantaged groups" (Davis, 2011). The concepts discussed here also have parallels within the "entitlements" approach developed by Sen (1981) and extended by Leach et al. (1999). What I call recognized rights would be described in the entitlement approach as a combination of the (formal and informal) rights with which households are endowed, and the way that these are mapped onto entitlements (sets of possible commodity bundles that can be exchanged for these endowments).

I avoid the term social capital both because it has been assigned so many meanings by different writers that it has become difficult to use without introducing unhelpful ambiguities, misconceptions, or ideology (see Morrow, 1999; Cleaver, 2005; Fine, 2002), and because I want to emphasize that the value I am interested in here is the sum of the other types of resource that can be accessed socially as a result of having social connections. This is in line with the definition in Bourdieu (1986) of social capital as:

the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or in other words, to membership in a group—which provides each of its members with the backing of the collectivity-owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word.

... The volume of the social capital possessed by a given agent thus depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected. (Bourdieu, 1986, p. 110)

There are clear similarities between recognized rights (see above) and access to resources gained through social connections. The difference (as I am defining the two concepts) is that the former concerns credit with respect to public institutions, such as school and the law, while the latter concerns credit with respect to a social network. The former might give the household access to the services of a teacher (along with use of a school building, textbooks, and so on), while the latter could give the household access to the services of a neighbour, say in helping with childcare⁴.

It can be questioned to what extent households in poor urban areas can access resources through social networks. Shared ownership of resources is likely to be more limited than in rural areas. Heterogeneity and high mobility may mean there is little trust (Rakodi, 2002). Studies in Accra, Ghana, in the 1990s found that

One migrant woman who was supporting herself and her children by petty trade, with no support from either husband or kin, noted, “[In Accra], even close brothers may be staying together and will not even share things. One can even die of starvation and his brother will not feel obliged to help. Here, it is everybody for himself.” (Maxwell et al., 2000, p. 42)

⁴ Arguably all forms of capital are social, and a key criticism of the term social capital is that it obscures the social nature of other kinds of capital (Fine, 2002). Monetary systems and private property, for example, depend on trust, mutual recognition of rules and institutions that enforce those rules. While acknowledging this I distinguish here between – on the one hand – resources which are generally recognized as being owned by a household or individuals in it, and resources (namely, labour) that are embodied within individuals, and – on the other hand – resources which are not generally recognized as theirs but which they can access through their social connections or group membership. The latter kind are what I call socially mediated resources.

Similarly, based on an ethnographic study in rural Tanzania, Cleaver (2005) argues that the poor “have fewer embedded expectations of cooperation and reciprocity, and their social relations are often fragile and dependent on heavy investments of time and effort to secure very limited benefits” (p. 904).

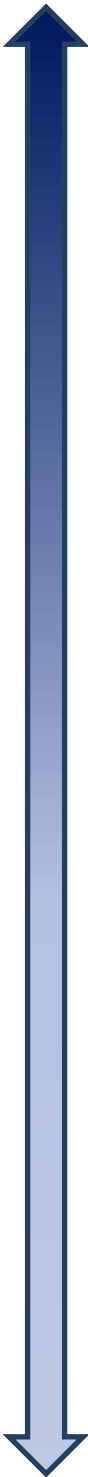
Although it does depend on social norms surrounding generosity, trust, and charity, in an environment where resources are tight all round, households may find they cannot access any resources through their social networks without an expectation of returning or repaying the resources soon afterwards. For instance, they may be able to borrow productive capital at low or no interest, or ask for help with doing household chores, with the expectation that they would do a similar favour for the other party if asked. Moreover, the benefits of such exchanges are likely to depend strongly on differences in power between the two (or several) parties to them. The net resources accumulated may be very limited, but this type of exchange – enabling households to alter the timing of their resource use to maximize the benefits – may nevertheless be very important.

2.2. How households use resources to access education

Table 1 summarizes the types of resource that are available to a household as described above, how they are constrained, and how other household needs impose competing demands on each type of resource. The household can choose how much labour, wealth and productive capital to invest in education, within the constraints of its endowments of these goods. It is less obvious to think of environment or recognized rights as resources the household can invest. Nevertheless, as I have described above, it may be able to invest money and time in increasing its access to these resources – for instance, by moving house to a place with more schools.

In this section I consider the ways that these resources are combined and dispensed in accessing education. These ways are listed in an illustrative and simplified form in the right-hand column of Table 1. In the following sub-sections, I categorize them under three broad headings: covering school costs, managing the relationship with the school, and supporting the child’s learning.

Table 1. Simplified summary of household resources and how they are used

Household's control	Type of resource	How it is constrained	Competing demands on this resource	How it is used for school
 <p>more</p>	Labour	Depends on number, education, health, etc. of household members, and their total time constraint	Income for household needs (food, healthcare...); leisure	Earn money to pay school costs. Children spend time in school. Parents spend time helping children learn and managing the relationship with the school
	Wealth and productive capital	Depends on household's inherited wealth and ability to invest income, which in turn depends on earning enough income to be able to save some as assets	Income for household needs	Can increase value of labour, or be sold for cash when needed, helping to cover school costs
	Information	Depends on both access to information and ability to assess its value	Not applicable – information can be used more than once	More informed household can choose schools more easily, reducing costs, and manage the relationship with the school better
	Environment	Difficult for individual households to improve the environment – need to move or use collective action	Choice of environment depends on proximity to jobs, friends, relatives, etc., as well as education	A good environment (e.g. close to school, steady electricity supply) reduces school costs and makes it easier to support children's learning
	Recognized rights	Individual households not always able to enforce recognition of their rights; community or political action might achieve this in the longer term.	May cost money (e.g. bribe needed for school admission) – so competes with other household needs	If a child's right to education is upheld by all relevant actors then costs are reduced, learning is supported, and the relationship with the school needs less management
less				

2.2.1. Covering school costs

The fact that households incur monetary costs in education in developing countries is widely documented (e.g. Boyle et al., 2002; Bray, 1996; Mukudi, 2004). The costs can include official and unofficial fees for attending classes and/or examinations, transport, school uniforms and school books and materials that the parents are obliged to provide. Large proportions of children across a wide range of societies spend a lot of time, and a substantial part of their educational expenditure, on some form of private tuition (Bray, 1999; Bray, 2006).

In several contexts, education has both consumed a substantial part of households' incomes, and has represented a proportionately heavier burden for the poorest than for others. Evidence from the late 1980s and early 1990s shows, for instance, that over 30% of the costs of public primary education are met by households directly in the Philippines, Viet Nam, and Cambodia (Bray, 1996), and much higher proportions in the private sector and at secondary level. Total private expenditures are often comparable in size to public expenditure on education (Glewwe and Kremer, 2006). In studies in China, Indonesia and Thailand during the same period the poorest households were spending 29-47% of their incomes on education – a larger share in each case than the richest (Bray, 1996). Other studies have found rather smaller levels of expenditure, particularly in African countries; for instance Lewin (2007b) reports survey results suggesting that education represented 5-10% of household expenditure in Uganda and at most 5% in Tanzania.

Are these costs large enough to be an important factor in household decision making? Yes, at least for some families and in some countries. There is evidence showing that school enrolments vary with wealth or income; that the introduction and abolition of school fees have been followed by increases or decreases in enrolments, respectively; and that parents cite school fees as a reason for their children not going to school.

The first strand of evidence comes from studies that have shown the importance of household income and wealth in affecting whether a child can go to school. Many studies have found that wealthier parents are more likely to enrol their children in school (e.g. Filmer and Pritchett, 2001, for India). Lewin (2007b) cites evidence from Demographic and Health Surveys (DHS) in 23 African countries, showing much higher proportions in school among the richest, at each level of education, than among the poorest. Lewin and Sabates (2011) show similar results for 13 African countries; surveys from the 2000s showed that household wealth remained the strongest predictor of never enrolling or of being overage in school.

Effects of income, as opposed to wealth, have also been found, especially in settings where households face liquidity constraints because they cannot access credit and savings (Grimm, 2011). Reviewing studies from a wide range of countries, Grimm (2011) finds that in many

cases, income shocks (short-term disturbances caused, for instance, by a sudden drop in prices) led to reduced investment in education or to children dropping out of school. By contrast, an urban study, in Durban, South Africa, finds that though poverty affects school attendance, income shocks were not a strong predictor (Hunter and May, 2002).

Moreover, income shocks may affect school enrolment through the need for child labour as well as inability to pay school costs. But there are at least some contexts where direct costs of schooling affect enrolments. Evidence for this comes from changes in enrolment over time associated with fees being introduced or removed. Mukudi (2004) finds that prior to fee abolition in Kenya, the fees caused drops in enrolment, increased drop-out and increased absenteeism in primary schools. The effects of school fee abolition policies in increasing school enrolment, for example in Kenya, Timor-Leste, and Uganda, suggest that fees are large enough to have an effect on households' decisions (School Fee Abolition Initiative, 2009; Deininger, 2003), notwithstanding earlier studies that suggested that the price elasticity for schooling (the extent to which households' schooling decisions respond to a change in the cost of schooling) was low (Glewwe and Kremer, 2006).

Additional evidence of a causal effect of school costs on attendance or enrolment comes from surveys that asked parents the reasons for non-attendance. Analysis of surveys across a number of countries finds that in South Africa, Nigeria, Egypt and Burkina Faso, monetary costs were reported as a significant factor in school non-attendance, while in Timor-Leste, Ethiopia, and India costs were only cited by a small minority of parents as being barriers to participation (Nordstrum, 2012).

Many countries have officially abolished primary school fees. Although other costs may remain even at primary level, they are likely to become a bigger issue at secondary level. But costs at secondary level could also affect primary school completion. The prospect of sending a child to secondary school, and obtaining the secondary certificate needed for many formal-sector jobs in developing countries, may be one of the main incentives for a child to attend and complete primary school.

Costs associated with schooling represent a flow of expenditures from a household's economic resources – using a part of its income from wages or money from savings – often following a fixed schedule such as once per year or per term. In modelling household schooling decisions, Filmer and Pritchett (2001) assert that “households will smooth schooling expenditures over time and are unlikely to respond to temporary shocks by withdrawing children from school” (p. 116). In other words, they will draw on savings (wealth) rather than directly on recent earnings from labour. As noted above, however, it is not clear to what extent households in a slum can

accumulate wealth – because institutions that would allow them to save and borrow are missing, or involve high costs (e.g. unfavourable interest rates).

In other cases households may simply not have enough to budget for school expenses. The burden of schooling on a household's budget has to be assessed in terms of its opportunity cost, that is, in terms of how the money (or other resources) would be used otherwise. In poor and budget-constrained households the opportunity cost can be very high because money is needed for essentials for living, including food, shelter, and healthcare.

School costs can be loosely classified as discretionary or non-discretionary. Transport may be discretionary if there is a genuine choice of schools nearer or further away from the household, and to the extent that parents can choose between different forms of transport. Private tuition may be near obligatory, especially if parts of the curriculum are withheld during school hours and only taught to children who receive private tuition; but in other cases it is more discretionary (Nordstrum, 2012). Even school fees are discretionary to the extent that they differ between types of school, and some schools are stricter than others about expelling students whose fees have not been fully paid. Private tuition or the choice of a more expensive private school will often represent attempts by the household to buy better schooling outcomes. The costs will also vary according to the supply of schools and tutors available in an area; the menu of educational options available locally is one aspect of the household's environmental resources (see section 2.1.4 above).

The fact that, in many countries, fees continued to be charged after education had been made officially free of cost, shows that school costs are not just a question of an individual household's economic resources (its wealth, productive assets, and income from labour), but also of its recognized rights (see section 2.1.5) – what rights it has according to law and whether these rights are recognized in practice by organizations such as schools and local government (recognized rights). To the extent that costs can be avoided (or delayed) through, for instance, negotiating with headmasters or lobbying government to ensure fees are not charged, overcoming costs is linked with how households manage the relationship with the school (this is discussed in section 2.2.2 below).

Similar interactions between recognized rights and wealth can be seen in the growth of private fee-charging schools and private tuition in many countries, especially in urban areas. Private fee-charging schools may grow in response to excess demand and difficulty accessing public schools (e.g. Bray, 1996, on East Asian countries; Härma, 2009, on India; Oketch et al., 2008, in Nairobi, Kenya). On the other hand, the rapid expansion of government schools without adequate funding can lead to teachers charging for private tuition as a way to make ends meet (Bray, 2006) or to parents choosing private schooling or tuition because of perceived low

quality of the public system (Bray, 1999; Härma, 2010). Parents may spend more to try and get a competitive advantage in response to bottlenecks in the school system at secondary or higher level (Bray, 2006). Spending on private tuition could also substitute for support that parents are unable to give themselves, because they are uneducated and do not have time, suggesting an interaction between parents' use of income in meeting school costs and their use of their own labour in supporting children through school (see section 2.2.3 below). An insufficient number of schools can be seen as a shortcoming of the physical environment – particularly if physical infrastructure is the main constraint. But an inadequate number of school places and inadequate funding for schools are in most cases more pertinently understood as failures of public institutions to recognize or to make realizable the right to education.

2.2.2. Managing the relationship with the school

Aside from meeting direct monetary costs of school, parents draw heavily on other resources in finding a school, gaining admission to it, and managing relationships with the headmaster, teachers, and other parents so that their children get the most that they can out of schooling. There are at least three ways in which managing the relationship with the school depends on the household's resources.

First, the household needs information on what schools are available in the area and how good they are. Recent migrants are likely to find this particularly challenging, and assessing school quality (and the quality of information concerning school quality) is likely to be difficult for parents who themselves have had little formal education.

Second, there may be bureaucratic obstacles to admission to a preferred school, such as the need for a birth certificate. Over-subscribed schools may put deliberate measures in place to keep numbers down, such as entry tests. This is the crucial point at which the child's right to education, and the extent to which that right is recognized by every actor who has the power to fulfil or deny it, come into play.

Third, parents may have to interact with teachers, headmasters and potentially local government, particularly when things are going wrong with the child's schooling, such as the child being required to repeat a grade, or being denied the chance to re-enter school after failing to attend for some time. In some cases this might involve complaining about teachers who, for instance, engage in corrupt forms of private tuition, are often absent, or are abusive. The lack of teacher accountability to poor parents has been raised as an issue in India, where teachers are accused of using union and political connections to avert disciplinary actions and inconvenient postings (Kingdon and Muzammil, 2010). Again, the household's recognized rights come into play, and these rights depend heavily on its power and influence with regard to these holders of power.

Children themselves also have to manage the relationship with the school; for school-going children this includes managing their day-to-day relationships with their teachers. Children whose parents are educated and of a similar social background to the teachers will probably find this relationship work easier, having acquired the right forms of cultural capital from an early age. This happens in subtle ways. In an ethnographic study in the USA, Lareau (2000) documents how middle class children spend time in activities organized by adults and stressing public performance and skill development, while working class children's lives revolved much more around informal play, visiting kin and 'hanging out'. Middle class children are thus prepared for the types of performance expected from them in school.

In some cases, like the absence of a school with enough places or a headmaster who illegally denies access to a child, the resources of an individual household may not be enough and only collective action will bring about the changes needed. But Cleaver (2005) notes that "collective action is risky for the poorest people" (p. 896), whose relationships with others are often fragile and sometimes characterized by marked power differences. In the USA, Horvat et al. (2003) found that middle class parents tended to react collectively, while working-class and poor parents did not. Middle class parents were also able to draw on contacts with professionals to get information, expertise or authority needed to contest the judgements of school officials. Working class families did have social networks that helped them in everyday life – just not in terms of their relationship with schools.

2.2.3. Supporting children's learning

Educational outcomes also depend on the ability of household members to devote time to supporting a child's learning, and to free the child from other responsibilities so that he or she has time to study. Going to school is a kind of work for a child. Learning takes time that could be used for leisure or for other profitable activities, such as working for money. The importance of child labour as a reason for children not to go to school has been widely attested (e.g. Nordstrum, 2012). Less widely discussed is the idea that, like other kinds of work, schooling can be either enjoyed or disliked. The pleasure that a child takes in learning, being with friends, taking part in school activities, and so on, can help to offset the costs. On the other hand boredom, abuse from teachers, and bullying could make school less enjoyable than working in a job or for the family business.

Parents also have to contribute labour to the child's learning, in monitoring the child's attendance, arranging transport, and helping with homework. Particularly in helping with homework, the effectiveness of their labour contribution will depend on their own prior education. They may be able to draw on their social networks, if their social networks include educated friends or relatives. And as seen above, they may opt to pay for private tuition, in

addition to or instead of supporting the child themselves. Arranging private tuition also requires the parents to obtain information on the quality of different tutors.

The cost of labour to household members can be measured as the opportunity cost of the time used – for instance, the amount they could have earned in paid work, or the value that they would assign to having used the time for leisure instead – plus any psychic cost associated with the effort of the work. The work of helping a child with his or her homework may, for instance, be both pleasurable and done during hours when other work is unavailable (in the evening), meaning it would come at a low cost. Alternatively, it could be done grudgingly by parents who themselves had a minimal education and so feel unable to help, and have many other important things to do, in which case the costs would be high.

Similarly the cost of the child's time depends on market wages that are available for children, although child labour may be made less attractive by laws against it, risks associated with it, and stigma attached to it. Although children may not be able to earn much, household credit constraints again mean that child labour may be an essential insurance mechanism against the potentially devastating effects of a sudden shock to income (such as illness of the main earner). Even occasionally missing school in order to work might make it impossible for the child to attend school again, depending on the flexibility of the school system.

Finally, the child's learning has to be supported in terms of providing adequate nutrition and healthcare, and an environment in which he or she can (ideally) learn without being exposed to stress, noise, overcrowding or risks that would affect learning. Poor childhood nutrition has well known detrimental effects on subsequent learning (Helmerts and Patnam, 2010; Dercon and Krishan, 2009). Exposure to violence affects children's cognitive and socio-emotional processes with long term consequences for learning (Chaux, 2009), and violence in society can also affect learning directly when it spills over into schools (e.g. Chaux et al., 2009, in Colombia; Baker-Henningham et al., 2009, in urban Jamaica). Early childhood nutrition is in large part a responsibility of parents, but can also be provided through government or non-government programmes (Nonoyama-Tarumi and Ota, 2010). Similarly, providing a safe and conducive environment is a matter both for schools and parents. It depends on a mixture of the household's environmental resources, their wealth (e.g. parents protect children from a violent environment by investing in a more secure dwelling), and their recognized rights with respect to schools.

2.3. Benefits

If households that are extremely resource-constrained nevertheless undertake to use some of those resources for education in the ways I have just described, it seems likely that they expect

some benefit in return⁵. There may be immediate benefits such as the pleasure of the child going to school, or the pleasure and pride for parents of seeing their child in school. In economic terms this is the value of education as a consumption good. But it is also valued as an investment good, producing a stream of economic and psychic benefits (such as being able to read for pleasure) into the future. In the economics literature, the main benefit is usually seen as enhanced productivity resulting in higher wages. Some benefits have both psychic and economic aspects. For instance, higher social standing that results from education may bring both pleasure and better livelihood opportunities.

The idea that education brings a flow of economic benefits through raising worker productivity is the basis of the rates of return to education literature, which typically finds schooling to represent a good investment when studied at a national level (e.g. Psacharopoulos and Patrinos, 2002). The returns can vary, though, depending on each household's standing in relation to external circumstances such as technological innovation (Foster and Rosenzweig, 1996).

The economic theory of screening challenges the assumption that better-educated workers are paid more purely because they are more productive. In screening theories, employers try to use the qualifications of a potential employee to gauge how productive he or she will be, and knowing that they will be assessed in this way affects the worker's incentives with regard to education. The classic models (Stiglitz, 1975; Spence, 1973) assume that workers have a characteristic, labelled 'ability', that does not change over time, and that ability is both inversely related to costs of schooling (the models assume that schooling costs less for more able individuals) and directly related to productivity in the workplace (more able individuals are assumed to be more productive). The effects of educational screening depend on the model used, but commonly include that "[a]dditional education obtained by individuals of a given ability raises the education needed by the more able if they are to signal their talents" (Riley, 1979, p. 229). Consequently, the amounts of schooling chosen by different individuals are more spread out relative to the outcome under perfect information (Lang, 1994).

Screening theory resonates with Dore's 'diploma disease' thesis (Dore, 1976b), which argues that:

the level of qualification required for any particular job tends to rise over time, because of overproduction of job-seekers (educated unemployment) and competition between professional bodies and employing organisations to 'tap the pool of talent' at the highest possible point. So there is more and more schooling (over and above the generally

⁵ I focus here on private, rather than social, benefits, in the sense of outcomes valued by the parents and/or child. However these valued outcomes are not necessarily selfish; for instance, parents may value a child becoming a good person and contributing to society. McMahon (1998) provides a conceptual framework and presents some of the evidence on the full range of private and social benefits of education, although focusing on higher education and developed countries.

desirable extension of basic education) for reasons which have nothing to do with the actual knowledge acquisition necessary for doing jobs. (Dore, 1980)

The use of qualifications as a selection mechanism by employers, according to Dore, pushes the education system and students to be more oriented towards examinations and qualifications rather than towards genuinely useful learning. Forms of education that do not lead to the right kinds of qualification may not confer economic benefits, and there may also be a concentration of benefits at the higher levels of education.

Dore has also argued, however (1976a), that there are at least ten different mechanisms that can produce a correlation between earnings and education, including different types of screening and a variety of types of knowledge and behaviour inculcated through schooling. What combination of mechanisms predominates cannot be judged without knowing a particular context, and in particular depends heavily on the distinction between “the sale of labour in active markets, and institutionalised forms of careers-within-organizations” (p. 90). In a situation where a range of education options are available the exact mechanism becomes important. For instance, it might be that NGO schooling leads to better cognitive skills, but private schools provide qualifications with the least effort. Households need somehow to assess the relative value of these different outcomes.

Whatever combination of mechanisms produces labour-market benefits to education, the benefits are subject to change over time both in response to changes in the country’s economy, and to changes in the existing labour force. In many low income countries, increasing school enrolments have driven down the rates of return, at least at lower levels of education (Jimenez and Patrinos, 2008).

As well as in formal and informal labour markets, there are benefits to education in family businesses, domestic work, family planning, reducing child mortality, raising children, and educating the next generation of children (Burchi and De Muro, 2009; Eskola and Gasperini, 2010; ILO, 2009). Although these effects are often cited, they are usually neglected in considering the benefits weighed up by households in making education decisions. Empirical rate of return studies typically look at the wage returns in labour markets, and data constraints often mean they are able to include only the formal sector, even though that sector is in many cases not a large part of the economy (Bennell, 1996). The present study tries to consider the benefits as broadly as possible, and also focuses on how they are perceived by the decision makers themselves, namely parents and children.

2.4. A constrained rational decision process

Having considered what resources households use for education and what benefits they stand to gain, we can now consider how they might weigh these up in a way analogous to an investment decision, as in human capital theory (Becker, 1964; Schultz, 1960). I will assume households are typically rational in the choices they make. As a research strategy, this amounts to looking for the reasons why they make these decisions. This is not to say that households or individuals are not occasionally irrational, or to ignore the real constraints under which they operate. It is in order to be clear about these constraints that I have tried in the preceding sections to emphasize how the resources available to a household are in large part determined by their social, institutional, and political setting. The use of the word decision here is not meant to imply that the household, or members of the household, can choose freely among different options; the decisions will generally be heavily shaped by their social and economic situation, and in some cases may be ‘made for them’: decision outcomes may be totally determined by external factors over which household members have no control.

The form of rationality implied here is that households seek to invest some of their current resources in education, in order to get a stream of benefits in the form of having more of these resources in the long term (including possibly, into the next generation), and also, potentially, in the form of ‘consumption’ benefits that are valued for non-economic reasons, such as children enjoying school.

In practice the decision process is not a one off choice but a series of often tacit decisions by different individuals within the household, including for instance the decision that the child makes to go to school each day, the decision (or absence of a decision) by parents to make the child stop going to school in order to work and earn money, and the decision to pay for books for another school year. Along the way, they gain information, such as whether the child seems good at school, whether he or she likes school, and how other children behave in school, that can help them make subsequent decisions. As Hunt (2008) writes on drop-out, educational decisions in fact represent processes rather than discrete events. Representing them here as singular events is a way of dealing with the complexity of overlapping processes, and also reflects the reality that they can typically only be measured in a binary way in survey data: I cannot tell with much certainty whether a child is on the way to dropping out, although it is possible to identify likely risk factors such as irregular attendance in class. Nevertheless, the present study also aims to explore the processes behind these measured outcomes, especially using the qualitative data from semi-structured interviews.

Figure 2 illustrates in an incomplete way how the decision making process plays out over time, in the context of the Bangladeshi education system that I will describe in Chapter 4. The

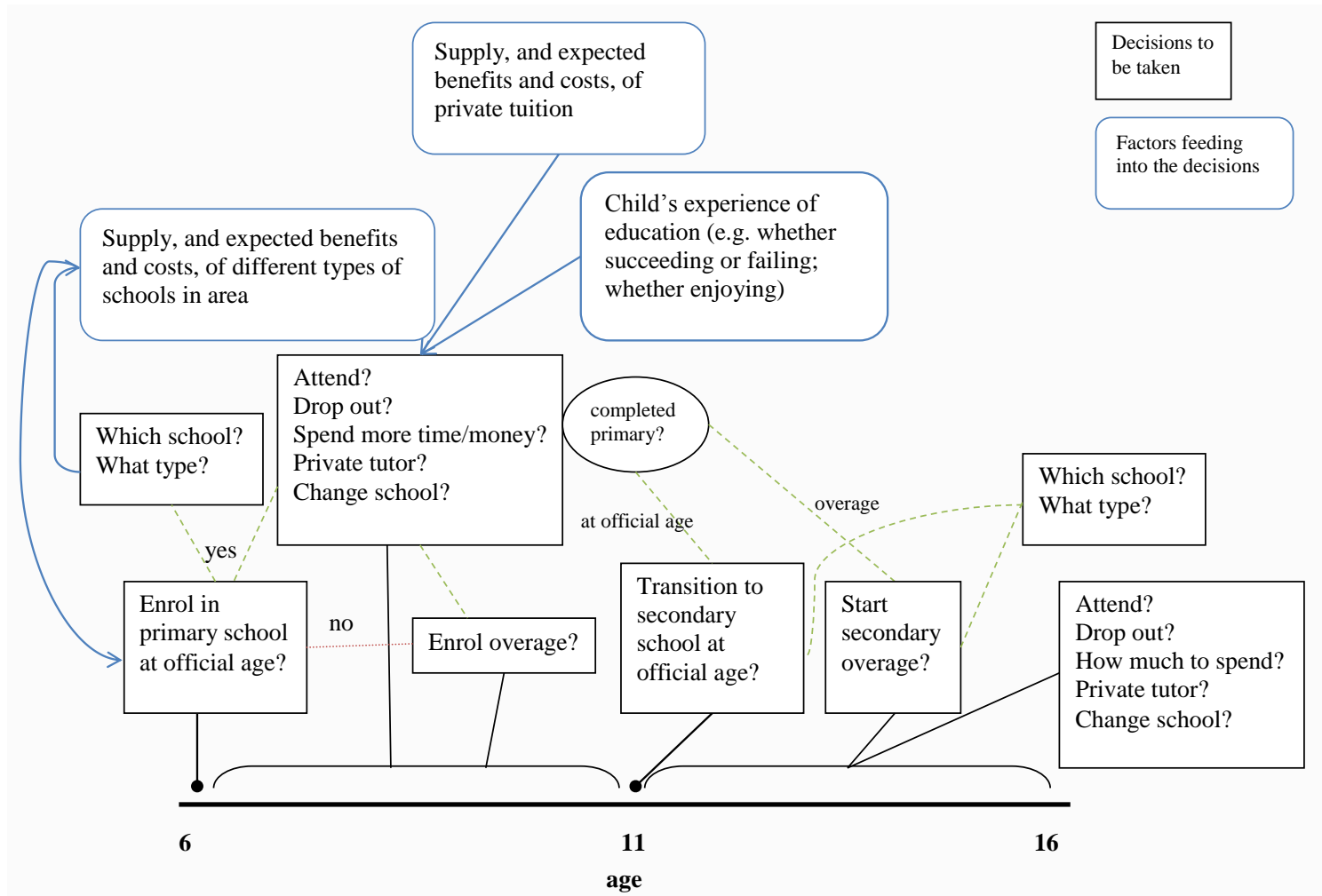
household has a one-off decision whether to enrol a child in primary school at the correct age (age 6). This decision depends on a combination of the household's wealth and income and the availability of schools that are free or affordable, as well as potentially other barriers, such as not knowing the correct age of enrolment (lack of information) or being excluded from school for some administrative reason (lack of recognised rights).

If they do not enrol at this stage, then they may still have the chance to enrol overage, for a few years. If they do enrol the child, there is a small often tacit decision to be made every day whether the child will attend. Non-attendance may not immediately entail fully dropping out; but an extended period of non-attendance is likely to lead to the child no longer being enrolled. As long as the child stays in school, the family will also have weekly or termly decisions about what resources it should use for education, including whether to hire a private tutor. As well as spending money, parents and children have to make more or less implicit decisions about inputs of other resources such as effort and time. During this period, the household is receiving at least some additional information on which to base its decisions, chiefly through the child's experiences at school; his or her enjoyment and success give an indication of the likely longer term benefits and costs. Upon completion of primary, a similar set of decisions then have to be made with regard to secondary education.

Each of these decisions might be compared to putting money in an investment fund. However investment in schooling has a particular characteristic that stretches this analogy. It is that failing to invest in schooling when required to may result in much of the previous investment being lost. For instance, a child who misses too many days of primary school may be denied the chance to progress any further. The bet that the household made on the child reaching secondary school and qualifications that would help him or her to get a well-paid job, is then lost. Relatively short-term shocks to the household can cause a major loss of invested resources. Investment in education is more like investment in a new and risky business than an investment fund; it is liable to fail at any point because of an insufficient flow of investment or because of factors beyond the household's control. Households, if they are rational, will tend to factor this type of risk into their initial decision-making⁶.

⁶ The importance of uncertainty in education decisions has long been recognized, even if it tends to be ignored for simplicity in rates of return studies. Becker (1964), for instance, noted that the actual return to human capital "varies around the expected return" (p. 77) because of uncertainty about the length of life, ability, and the environment in which the return is to be received.

Figure 2. The decision making process over time



2.4.1. Education and livelihoods strategies

Investment in schooling has to be placed within the context of a household's various livelihood opportunities and, in some cases, attempts to diversify. In considering this I follow the urban livelihoods approach of Rakodi (2002) which in turn draws on rural livelihoods frameworks such as Chambers and Conway (1992) and Ellis (1998). Households have a portfolio of assets, and make decisions about how the portfolio is used "for example, for earning, by disposal, to fulfil kinship obligations and responsibilities, to develop mutual support networks, or by changes to diet" (Rakodi, 2002, p. 6). They adopt strategies to cope with and recover from stress and shocks, and to provide sustainable livelihood opportunities for the next generation.

Education decisions are represented within the livelihoods framework as households using some parts of their portfolio (money, labour) to strengthen, and reduce vulnerability in, future livelihoods (as well as education being consumed as a good in its own right). But given that schooling is a risky investment, the risks have to be taken into consideration (and compared to risks in other forms of investment)⁷ as well as the average benefit. Despite being risky in itself, an investment in education might reduce the risk in a household's livelihoods as a whole. Ellis (1998) emphasizes diversification in livelihoods strategies as a way of reducing vulnerability to shocks that may affect one stream of income, and notes that "[l]ack of education has been identified as a critical constraint inhibiting diversification by several researchers" (Ellis, 1998, p. 27).

The series of decisions a household makes *may* be part of a conscious strategy. However the term strategy should be reserved for cases where there is evidence that a series of decisions have been planned in advance, with some degree of coordination among household members. There is a danger that "[t]he concept of . . . strategy can lose its meaning to the extent that it becomes a mere functionalist label applied ex post to whatever behaviour is found" (Schmink, 1984, quoted in De Haan and Zoomers, 2005, p. 39). This is particularly so if household members have interests that are not aligned and do not coordinate their decision making (see further discussion of intra-household conflict and cooperation below).

Strategic behaviour should be acknowledged while recognizing that it is bounded by structural constraints and embedded in the "available historical repertoire" (De Haan and Zoomers, 2005,

⁷ Few, if any, studies have considered risk in household education decisions in developing countries. Weiss (1972), Levhari and Weiss (1974), and Chen (2001) look at risk in decisions concerning higher education in the USA. Breen and Goldthorpe's (1997) theoretical model includes uncertainty in outcomes and shows that this, together with an aversion of members of a particular social class to downward mobility, can create differences in the expected (risk-adjusted) returns to education for each class, resulting in higher social classes getting more education.

p. 41). De Haan and Zoomers argue that, rather than strategies, households may follow livelihoods “styles” consisting (in rural contexts) of “a specific cultural repertoire composed of shared experiences, knowledge, insights, interests, prospects and interpretations of the context; an integrated set of practices and artefacts, such as crop varieties, instruments, cattle; a specific ordering of the interrelations with markets, technology and institutions; and responses to policies” (De Haan and Zoomers, 2005, p. 40). Similar to Bourdieu’s ‘habitus,’ styles are defined by social class and acquired through socialization. Persons belonging to the same social group have similar opportunities and tend to develop similar behavioural dispositions; but these dispositions can also change over time as people change social position or as the structure of opportunities shifts.

2.4.2. Hopes, expectations and mental models

The idea of mental models can help us understand the specifics of how social structure influences individual or household decisions in ways that can mean shared livelihoods styles emerge among actors in similar social positions. In the presence of incomplete information, parents and children make choices on the basis of “mental models” of the benefits and costs of schooling, which they acquire partly through experience and partly through interactions with people around them, and which are thus specific to a particular time, place and socio-economic context (North, 1994; Srivastava, 2006). In practice this can mean following conventional wisdom, following the examples of friends, relatives or neighbours, and relying on prevailing normative opinions (e.g. education is good) without constantly having to question the underlying basis for those opinions. While under normal circumstances these shortcut methods might be used without much deliberation, when faced with severe hardship (hunger, the loss of a home), conflict within the household (e.g. the child goes against the parents’ wishes and refuses to go to school), or unforeseen adversity (e.g. a difficult exam that must be passed to progress further), households are forced to make decisions more consciously⁸.

An important part of this mental model is the expectations and aspirations that household members have for a child’s future. Parents and children themselves have to make judgements about what labour markets and the economy will look like in several years’ time and about what place they will be able to find for themselves within that picture. In the absence of specific information their mental models might consist of broad-brush generalizations (e.g. education is becoming more important for a job) or potentially of normative or ideological principles that contain little or no descriptive information about the future and current realities (e.g. education

⁸ This is similar to the “weak” version of rational action theory proposed by Goldthorpe (1996): actors have goals and tend in some degree to assess probable costs and benefits, “rather than, say, unthinkingly following social norms or giving unreflecting expression to cultural values”; they are also “to a degree knowledgeable about their society and their situations within it ... rather than, say, being quite uninformed or ideologically deluded” (p. 485).

is good in general; education makes people good). Given the level of uncertainty involved, it is not clear *a priori* that mental models based on sweeping or abstract principles would perform any better or worse in securing valued outcomes than models based on more specific ideas about labour markets or returns to education. Rational strategies are likely to be ones that will work even if expectations are confounded to some degree.

By aspirations I refer to parents' and children's more or less realistic, and more or less specific, desires concerning the future. Aspirations are bounded by parents' and children's understanding of what is *possible* (unlike wishes or dreams), even though they may go beyond what is *likely to happen* (their expectations). Consequently aspirations may be revised downward during the course of a child's education, as more information comes in about the barriers he or she is going to face in progressing through school and into the labour market. They may also be revised upwards, if radically better educational opportunities, or new and accessible industries to work in, arise.

Both expectations and aspirations in education have been found to be important predictors of achievement at school and beyond, at least in developed country studies (see Lowman and Elliott, 2010). A study of teenagers in a deprived area of London found a strong association between *prior* education achievement and aspirations to stay in school beyond 16. Even controlling for this association, and for other characteristics such as socioeconomic status and self-esteem, it finds that aspirations have a strong effect on *subsequent* achievement (Rothson et al., 2011).

Expectations and aspirations may be a mediating factor between students' socioeconomic background and their educational outcomes. Sewell and Hauser (1992) conducted a longitudinal study in Wisconsin during 1963-1992 and found that socioeconomic status and parents' education had strong effects on educational and occupational aspirations, and these aspirations in turn affected students' attainment in school. Yates et al. (2010) find that young people in the UK with uncertain occupational aspirations, or ones misaligned with their educational expectations, are considerably more likely to be neither in education or employment by 18. Uncertainty and misaligned expectations were both more widespread and more detrimental for those from poorer backgrounds.

These findings support the idea that expectations and aspirations have a central place in mental models around education and work, but also suggest that their role may be a subtle one, potentially operating on an unconscious level to influence children's educational performance in ways that are hard to predict. Expectations and aspirations may be influenced by parents' and the child's own perceptions of the child's abilities, as well as of the opportunities that are available, but those perceptions are in each case likely to be heavily conditioned by the

household's social position. There is potential for a self-reinforcing cycle, where low expectations lead to poor outcomes, which reinforce negative perceptions of the child's abilities, and strengthen the low expectations.

2.4.3. The household as unit of study

The household, defined as “a person or co-resident group of people who contribute to and/or benefit from a joint economy in either cash or domestic labour” (Rakodi, 2002, p. 7) is chosen as the main unit of analysis for this research. In general, many urban families fit this description. Many do not, including men living in ‘mess’ accommodation but without sharing incomes; families with emigrant members who contribute cash to the household economy; and children who live on the street, with or without adult family members. But the focus of this study justifies the exclusion of individuals living without children; income from outside sources can be accommodated without too much difficulty; and children who live in the street are likely to face very different issues and so deserve a completely separate study from this one.

However, it is important to keep in mind that households change over time and the picture of a household as a cohesive, enduring unit with singular aims may not be very close to the reality. Men normally have more power over household decisions than women or children. Decisions about allocation of resources are influenced by the bargaining power of different members and by social norms (Rakodi, 2002).

Economic models have suggested that households with some selfish members can act together as if they have a single utility function, but these rely on particular assumptions about incentives within the household (Folbre, 1986). The idea of households making decisions or strategizing has to be seen as an abstraction from the processes of bargaining, conflict, cooperation, and changes in members within the household⁹. There are pragmatic reasons for keeping households as the unit of analysis: first, it makes it easier to theorize and model what is happening in terms of inequalities *between* households; and second, it is harder in practical terms for an outsider researcher to conduct research on what happens within households (see Chapter 4). Whether this abstraction works depends on whether the within-household processes play themselves out in more or less consistent ways. (It does not depend on stronger assumptions about the household,

⁹ Doss (1996) describes models of the household and summarizes research that can test between them, finding that there is substantial evidence against ‘common preferences’ models, which assume either that household members have identical utility functions, or that there is some rule (that can be specified *a priori*) for aggregating individual utility functions into a joint one. Unified models, such as Becker’s “rotten kid theorem” (1981), may also be inadequate for many situations. ‘Collective’ models, such as those proposed by Chiappori (1988) make the more modest claim that there is some sharing rule and that we can determine what it is given the right data, and may run less risk of imposing problematic assumptions. Doss (1996) notes that one shortcoming in all types of household model is that they have rarely included children as potential actors, depicting them instead as merely consumption or investment goods to be argued, or cooperated, over by adult household members.

such as that members all have the same preferences. I assume that their preferences combine in a way that produces consistent household decision outcomes, but do not make any *a priori* assumptions about how this happens.) I try to keep in mind the interactions between individuals going on in the background, even if they are not the main focus. For example, changes in relative bargaining power within a household, for instance due to a relative increase in mother's income, may affect the allocation of household resources towards children (Folbre, 1986), even if the household's total resources stay the same.

It is also important not to ignore the potential for agency in decision-making by children themselves. Punch (2004) emphasizes "negotiation" as a way in which children may exercise some agency in decision making: children (in a UK context) "may not be fully independent, but they negotiate a relative autonomy within the constraints which limit their choices" (p. 96); and they "use their resourcefulness to stretch adult-imposed boundaries to limits more acceptable to themselves" (p. 110). Though they are constrained by structural forces within the household as well as beyond it, they struggle "to gain a better deal in their relationships within different structures" (p. 95).

The dynamics among different children within a household add an additional complication. The most obvious way in which this can happen is that households with more children have to share their resources more thinly. Becker and Lewis (1973) tie this to changes in fertility: to the extent that family size is planned, the decision about how many children to have may reflect a trade-off between 'quality and quantity'. Some research has found that children in large families receive smaller education investments and have poorer attainment than those in smaller families (e.g. Hanushek, 1992 in the USA; Kang, 2011 in South Korea; Rosenzweig and Wolpin, 1980, in India), although it is not always clear whether family size or some missing third variable is the real cause of the worse schooling outcomes (Kang, 2011). Goux and Maurin (2005), using a survey in France, suggest overcrowded housing as the cause of worse school performance among children from larger families. (This does not contradict the idea that fewer resources are invested in children from larger families, because space can be seen as one of the resources that have to be shared among family members and that are used for education.)

A negative effect of family size on the amount of resources available per child may be offset if children themselves contribute substantial resources to the household, through paid or unpaid work. And once children are old enough to do relatively well-paid work, and assuming they are able to find such work, households with a larger number of children will also benefit more. There is also potential for trade-offs between investments of resources going to different children; more may be spent on education for the first child, for male children, or for a child who seems brighter.

2.5. Summary and conclusion

This chapter has set out a framework for analysing the resources that a household has at its disposal, and which it uses both for accessing education and for other goals – such as maintaining and building up livelihoods. These include wealth, productive capital and labour – resources that the household can choose to invest in education, but at the expense of other potential uses – and also the environment and recognized rights – resources that are better seen as external to the household but over which it may nevertheless have some degree of control. Information and social connections that allow a household to access resources belonging to other households are also important. In accessing education, the household has to use these resources to cover the costs of school, manage the relationship with the school, and support children's learning. Households make decisions about education by weighing up these costs (the degree to which they have to use their limited resources) with what it expects to be the short- and long term benefits.

The following chapter will fill in the detail and try to assess which aspects of the framework are most important in the case of poor urban households in Bangladesh. Chapter 5, Chapter 6, Chapter 7, and Chapter 8 will then apply the framework to the results of my own study. In Chapter 9 I will try to stand back from the framework and both consider whether it is successful in interpreting data to understand how households make decisions, and to what extent it captures points that would be missing from an analysis based on simpler models such as those using conventional economic rates of return to education.

Chapter 3. Education and urban poverty in Bangladesh: a literature review

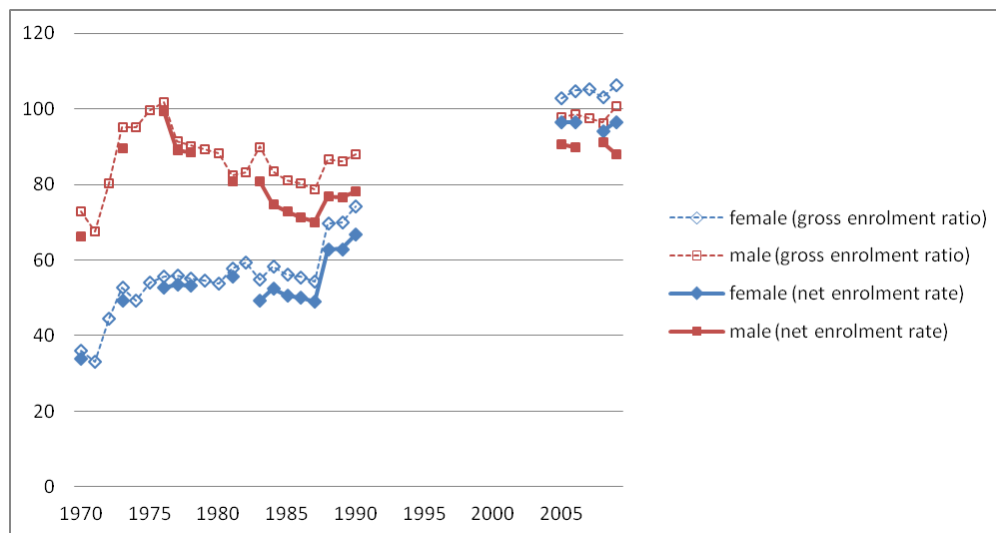
This chapter starts by providing background information on education provision and urban poverty in Bangladesh. I then apply the conceptual framework developed in the previous chapter to the literature on Bangladesh, to examine how households make education decisions and to identify unresolved questions. Finally I relate those unresolved questions and summarize the implications of the literature for this research.

3.1. Context: education provision in Bangladesh

3.1.1. Primary enrolment: growth, stagnation and inequality

Official enrolment figures for Bangladesh paint a rosy picture. In 2008, officially 91% of boys and 94% of girls were in primary school (UIS, n.d.; see Figure 3). This represents very rapid progress for a country that in 1970 had only 66% of boys and 34% of girls in primary school. In spite of being among the poorest countries in the world – per capita GDP was US\$1659 (PPP) in 2010 – and maintaining relatively low education spending as a proportion of GDP – 2.4% in 2010 – it has closed (indeed, reversed) the massive gender gap and is approaching the goal of universal primary education.

Figure 3. Official data on primary enrolments, 1970-2009



Note: data missing for 1991-2004.

Source: UIS (n.d.)

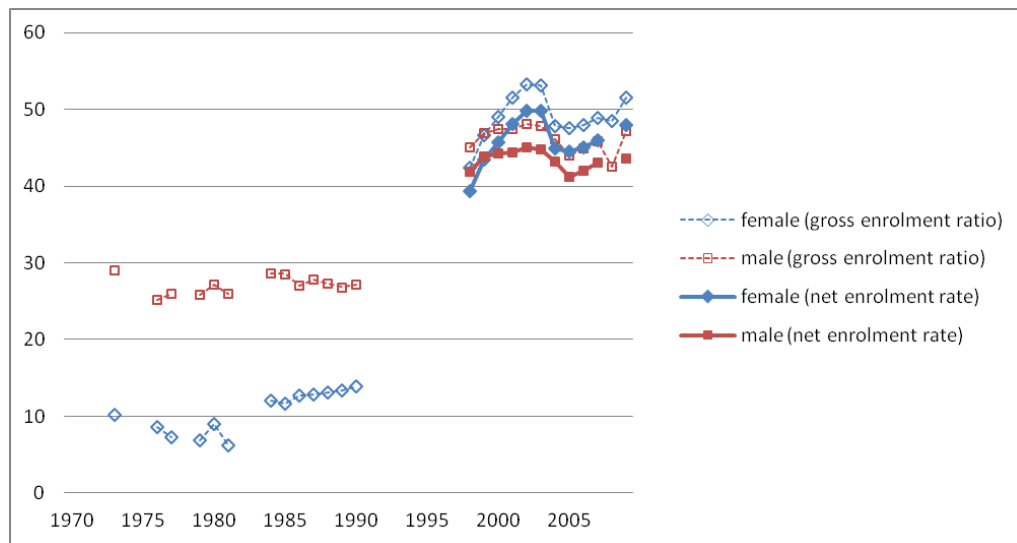
Some of this progress may be illusory, however. World Bank (2008) estimates primary net enrolment rates at 69% in urban areas (based on the 2005 Household Income and Expenditure Survey), and even government reports cast doubt on the official rate (MOPME, 2009a). Data from Demographic and Health Surveys (DHS) show net attendance rates compatible with the

official enrolment rates, while according to Multiple Indicator Cluster Surveys (MICS), primary attendance stagnated around 81% (slightly higher for girls) between 2006 and 2009 (UNICEF, 2010). Government school surveys suggest that around 20% of enrolled students in government-controlled primary schools are typically absent (MOPME, 2008).

If the less optimistic indicators are to be believed then around 20 to 30% of primary-age children are either not enrolled in school or are enrolled but not attending. There is also evidence of large inequalities. In the MICS data, the net attendance rate drops to only 65% in urban slums. The wide range of results leads one to wonder whether all children, and especially those in difficult-to-survey groups such as slum dwellers, migrants, children who live in the streets, and remote rural villages, are being covered by all of these surveys.

Many of the non-enrolled or non-attending primary-age students are likely to have been to primary school at some stage, but to have dropped out before completing the final grade (grade 5). In official statistics only 54% of 12 year olds have finished primary school (UIS, n.d.); Ahmed et al. (2007) report a primary drop-out rate of 48%. World Bank (2008) finds that 90% of 15-19 year olds in the richest quintile, but only around 60% of the poorest, had completed primary school. Reports based on DHS and MICS suggest much higher primary completion, although the MICS report finds particularly high primary drop-out rates in urban slums – 7.1% for boys and 8.6% for girls (UNICEF, 2010; NIPORT et al., 2009).

Though the main focus of this study is on primary school, it needs to be remembered that a student's prospects for entering secondary school may well affect decisions about primary education and overall attitudes to the education system. In Bangladesh the primary cycle is quite short – five years – and there appears to be a severe bottleneck when it comes to passing from primary to secondary. There was rapid enrolment growth during the 1990s (Figure 4) (although enrolment data are unavailable for that period itself), so that gross enrolment rates leapt from around 20% in 1990 to over 40% in 1998, and the large gender disparity in favour of boys switched to a small one in favour of girls. But since 2000, there has been no further improvement. The MICS 2009 data concur, revealing net attendance rates of around 50% (UNICEF, 2010), although the rates found in DHS surveys are, surprisingly, much higher, having increased from around 60% in 1999 and 2004 to around 70% in 2007 (UNESCO et al., 2010; NIPORT et al., 2009). Among 20-24 year-olds in the DHS 2007 data, only 16% had completed secondary school, suggesting an even worse problem with non-completion at secondary level than at primary level.

Figure 4. Secondary enrolments, 1973-2009

Note: Prior to 1998 there was no net enrolment rate data and only partial gross enrolment ratio data.

Source: UIS (n.d.)

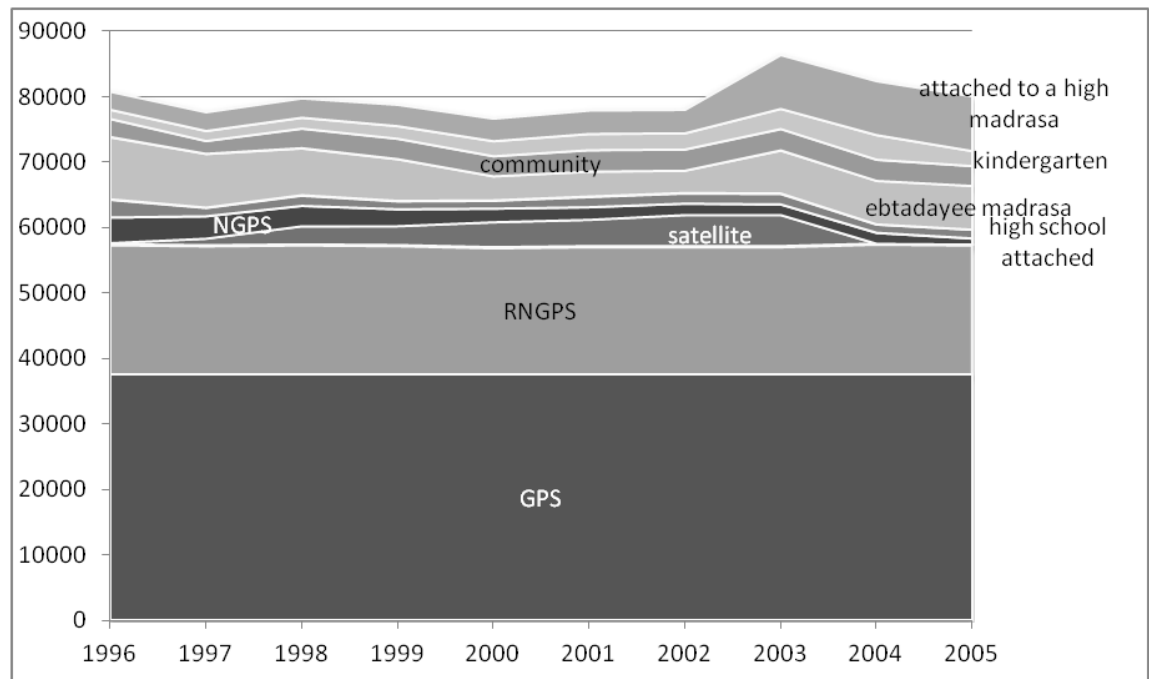
Education decisions are likely also to be affected by how much children are seen to be learning in school. It has been suggested that the rapid growth in primary education during the 1990s was associated with a decline in quality. Ahmed et al. (2007) note that although the country's EFA objective was to increase enrolment and promote quality of education, in practice the focus has been more on achieving enrolment targets, measured as gross enrolment numbers, with no mention of age-specific enrolments or equity (apart from gender equity). Chowdhury et al. (2003) report that the proportion of children aged 11-12 achieving basic learning competency was generally low (30% nationally), and lower for girls than boys, especially in urban areas. Urban 11-12 year olds were more likely than rural ones to pass a test of basic education; 48% of urban and 27% of rural students passed tests in 'life skills', reading, mathematics and writing. (The gap was smaller if the life skills test was left out.) But during the 1990s the achievement rates in these tests increased for rural students but dropped (except in the writing test) among urban children, especially urban girls. Chowdhury et al. attribute the drop in urban achievement to increases in slum populations and failure of educational facilities to keep pace with population growth. Primary teachers given simple tests in Bangla and mathematics have also achieved surprisingly low scores (FMRP, 2006).

One factor underlying quality trends may be the widespread use of double-shifting, whereby classes 1 and 2 are generally taught in the morning and 3, 4, and 5 in the afternoon. 87% of government and all registered non-government primary schools use this system. A key target in the government's second Primary Education Development Plan (PEDP II) is to reduce the number of double shift schools – although this would likely harm quality if the numbers of teachers are not increased dramatically at the same time (FMRP, 2006).

3.1.2. School provision

The number of primary schools in Bangladesh basically remained constant between 1996 and 2005 (Figure 5). The total fluctuated but was similar in 2005 to in 1996, the disappearance of satellite schools and a decline in (unregistered) non-government primary schools (NGPS) having been compensated by an increase in community schools, kindergartens, and those attached to high madrasas. The numbers remained the same in 2010 (Ahmed, 2011). Bangladesh has tried to accommodate its rapidly rising number of pupils within existing schools, rather than by building new ones.

Figure 5. Number of primary schools by type, 1996-2005



Source: MOPME (n.d.)

Box 1 explains the different school types at primary level in Bangladesh. Several studies have suggested that there are large numbers of unrecognized NGO, madrasa and kindergarten schools in Bangladesh. Given the lack of expansion of government schools, it may be that these unrecognized schools have catered to the growing demand for education¹⁰.

Box 1. Primary school types in Bangladesh

Government primary schools (GPS) are fully government funded and managed. In 2005 there were around 37,700 GPS, accounting for 47% of the total number of government-recorded institutions and 55% of total enrolments.

¹⁰ Demand would have increased simply due to population growth, and also to some extent relocated from rural to urban areas, due to urbanization. Removal of fees and increasing awareness of benefits of education are also likely to have increased demand, though there is little direct evidence for this.

Registered non-government primary schools (RNGPS) are privately operated but receive government funding covering 90% of teachers' salaries, stipends for 40% of rural students, and free textbooks for all students (Al-Samarrai, 2007, p. 4). They account for around 24% of schools and 21% of enrolments (typically enrolling fewer children per school than GPS).

Non-registered non-government primary schools (NGPS), refers to "schools set up privately or under community auspices, usually waiting to meet the criteria for government registration and financial support" (Ahmed et al., 2005, p. 27). There were 946 such schools in 2005, representing 1.7% of enrolments (MOPME, n.d.). This category does not include kindergartens, NGOs, community schools, or private madrasas.

Kindergartens are also fully private schools. According to government data there are 2281 of these, representing 2.8% of schools and 1.3% of enrolments, although since many of these are not registered in any way the true number may be greater. Kindergarten is often used as a term for any fully private primary school, and does not always refer specifically to schools for young children.

Primary classes attached to high schools are based in the same premises as (either private or government) high schools and managed by the high school authorities. They follow the national primary curriculum but do not receive any government support (Ahmed et al., 2005). There are around 1300 of these (1.7% of schools / 2.7% of enrolments).

NGOs provide a wide variety of types of primary-level education: for example, some closely follow the government school system; others use a compressed three-year non-formal curriculum; and others still offer education on a drop-in basis and do not follow a set curriculum. "NGO schools," as referred to in government data, refers only to those which are registered with the government and which offer a 'complete' primary curriculum, i.e. grades 1 to 5. There are less than 300 such schools in the country, accounting for 0.4% of enrolments. In addition there are "over 30,000 one-room, one-teacher schools run by NGOs" (Ahmed et al., 2007, p. xviii) attended by an estimated 1.5 million children, including 1.2 million in schools run by the huge Bangladeshi NGO, BRAC (World Bank, 2006). If included in official figures these would boost the number of children enrolled by about 8%.

Community schools are "community-sponsored schools taught by a locally appointed teacher in communities where regular school provisions are insufficient" (Ahmed et al., 2005, p. 27). There are around 3000 such schools and they account for around 2% of enrolments. Government contributes towards teacher salaries, stipends for some rural students, and provides free textbooks.

Ebtedayee madrasas are madrasas which receive some funding from the government (via district education offices) to provide religious education at the primary level. Primary education is also offered in ebtedayee sections of other types of madrasa, receiving different levels of funding. The government recognises academic equivalence between ebtedayee madrasas and the mainstream

system, and allows mobility between the two streams (Ahmad and Ahmed, 2007). Ebtedayee madrasas and ebtedayee sections of recognised non-government high madrasas number 15,000, accounting for 18% of the total number of recognised institutions, and 10% of enrolments. There are also non-recognised madrasas for which no data are available.

There also exist a few *experimental schools* which are used by teacher training institutes for practice teaching. Until 2004 there were around 5000 *satellite schools* – one- or two-classroom institutions covering grades 1 and 2. Government support has been discontinued for these and apparently they have all closed (MOPME, n.d.).

In 2008 there were reportedly 756 government primary schools in Dhaka District and 295 in Dhaka City Corporation (MOPME, n.d.). Within the City Corporation, the schools had around nine rooms on average and 75% use a double shift system. They could therefore be expected to serve around 200,000 children. Adding RNGPS does not add much to this figure, since there were only 43 such schools in the City Corporation. This is roughly one government or registered non-government class per 150 primary school-aged children¹¹, or more if higher population estimates are believed. Even if there were 50 children in each class, two-thirds of the children would still be either out-of-school or using some other type of school – NGO, private for-profit, or madrasa.¹² An urban scorecard survey (World Bank, 2001) finds that 59% of urban Dhaka residents had problems getting into school due to limited numbers of seats, and smaller numbers also had problems because of admissions tests or because school authorities demanded donations.

A large number of different NGOs provide education in Bangladesh, although they have traditionally been more rural than urban-focused (Box 2). Baker (2007) reports survey results showing that 26% of slums have a government school and 27% an NGO operated school. According to a survey conducted by the Centre for Urban Studies (CUS et al., 2006), 11% of Dhaka slums received services from one NGO, and 59% from more than one, although the survey did not ask how many of these are education NGOs.

¹¹ A rough calculation which assumes the City Corporation's population is 8 million and 10% are of primary school age; see World Population Prospects (2008) for demographic data and CUS et al. (2006) for Dhaka population data.

¹² Putting this differently, there is one government or registered school in the City Corporation per 23,000 population. For comparison, the Government of Bangladesh's 2003 National Education Commission recommended establishing one school for every 1500 population (Ahmed et al., 2007).

Box 2. NGO education provision in urban Bangladesh

Many Bangladeshi NGOs have traditionally had a strong rural focus and have only relatively recently started considering how to expand their provision to the growing population of poor urban people. Nevertheless there are already a large number who are in some way involved. Thirty NGOs were reported to work in Dhaka in 2003; the Coalition for the Urban Poor, an umbrella organization of urban NGOs, has 44 members (Baker, 2007). These numbers are likely to underestimate the number of small NGOs, often running schools from single rooms. Some of the larger operations include:

BRAC, which has traditionally had a strong rural focus but in 2009 was due to set up 1400 more schools in urban areas.

The **Dhaka Ahsania Mission** has 200 Basic Education Centres for Hard-to-Reach children serving around 5000 working children aged 10-14 in Dhaka, one drop-in centre for street children serving 150 children, and nine Urban Community Learning Centres in two parts of Dhaka. These centres use a mixture of non-formal and formal learning, using some government materials.

The Spanish-based international NGO **Intervida** had seventeen conventional primary schools, serving 3900 children in “marginal urban areas” and five three-year basic education schools for child labourers (Intervida, n.d.).

A UNICEF-supported programme, **Basic Education for Hard-to-Reach Urban Working Children**, began in 1997 and provides informal education to working children living in urban slums (UNICEF, n.d.-a; UNICEF, n.d.-b). It uses a shortened (two and a half hours) school day so that children can continue to work and targets children aged 10 to 14 who are not attending any other school and work at least seven hours per week. The education includes basic literacy and numeracy, life skills, health care, and issues relevant to their situation such as their rights and hazardous work. The course runs for 40 months and children are supposed to achieve competency in Bengali, mathematics, life skills, and English. It enrolled 346,000 children in total across six cities during its first phase, 1997-2004, and has opened around 6000 learning centres under its second phase, which is due to continue until 2011 and enrolls some 166,000 children at a time (UNICEF, n.d.-a). The running of the centres was sub-contracted to NGOs selected by a committee that included staff of the Ministry of Primary and Mass Education (Rahman et al., 2010). In Dhaka there were 6765 centres as part of the first phase, catering for around 200,000 learners.

Friends in Village Development, Bangladesh (FIVDB) was one of the sub-contracted NGOs for the UNICEF programme. In 2007 it was operating 100 such centres in urban slums for working children, and a further 200 learning centres under another UNICEF-supported programme that began in 2004. The latter, called the Urban Slum Children Education Programme, catered to 30 children in each centre and covered 22 of the city’s wards (Ahmed et al., 2007).

The different school types are, to some extent, used by different parts of the population. Government (GPS and RNGPS) schools seem to cater equally to the different socioeconomic quintiles. World Bank (2006), drawing on the 2000 HIES, shows that about 34% of government primary school students and 27% in registered non-government schools were from the bottom two socio-economic quintiles. By contrast NGO operated schools cater primarily (71%) to the poorer two quintiles, while ‘private and other’ schools cater predominantly (58%) to the top two quintiles.

Reality Check Bangladesh, a Swedish International Development Cooperation Agency study that has been conducted in the same nine parts of Bangladesh in 2007, 2008 and 2009 (SIDA Bangladesh, 2010), finds increasing numbers of NGO schools for working children in its urban and peri-urban study areas. Some children were enrolled in both government and NGO schools, and some NGOs were accused of poaching children from mainstream schools. Many supposed drop-outs were in fact transfers between schools. The study also records new private schools opening, mainly aimed at families who were not very well off.

World Bank (2006) reports that, after controlling for a range of factors that could influence test scores, attending an NGO school increases both reading and writing test scores significantly more than a government school. Attendance and completion rates were also higher in NGO schools than in government schools, according to the same study, and transition from NGO primary schools to government secondary schools is “impressive” (World Bank, 2006, p. 29). Survival rates to class 5 appear to be higher in RNGPS than in GPS (Al-Samarrai, 2007).

Sukontamarn (2005), comparing BRAC schools to government primary schools using data from 1998, finds that BRAC schools had much smaller class size, less teacher absenteeism, more female teachers and higher pupil attendance. However the teachers tend to have less experience and government schools more commonly had parent-teacher associations or school management committees. Living in a village with a BRAC school was associated with higher enrolment among girls compared to boys, especially among BRAC target households, and attending a BRAC school had positive and significant effects on basic competency tests.

3.1.3. Recognizing the right to education

Bangladesh officially recognizes the right to primary education and has implemented several plans and projects around the goal of universal primary education, including the 1990 Primary Education (Compulsory) Act, which has led over the years to policies such as the elimination of school fees, provision of textbooks free of charge, and incentives to encourage the participation of vulnerable children (Tietjen, 2003). Stipends have been introduced first for primary, then for

secondary education, in rural areas, though students in many NGO education programmes are excluded from the stipend scheme (MOPME, 2009b; Tietjen, 2003).

A series of Primary Education Development Plans (PEDP I, II and III) have been developed. PEDP II, which was intended to cover the period 2004-2009 but with delays pushing its end date back to 2011, included large scale classroom construction and teacher recruitment (Ahmed et al., 2007). By 2009 some 24,000 classrooms had been built under PEDP II. Priority was supposed to be given to underserved areas, but it is not clear to what extent this aim was met (MOPME, 2009a). An additional project, Reaching Out of School Children (ROSC), aimed to supplement PEDP II, which focuses only on the formal education system, by “identifying children who are not yet in schools, focusing mainly on areas where enrollment is low and poverty incidence high” (Ahmed et al., 2007, p. 42) and providing specialized non-formal learning centres and education allowances as incentives.

The public education budget in 2008 was only 2.4% of gross domestic product (UIS, n.d.) – a low figure compared to other countries in the region and developing countries generally; for instance India spends around 4% of its GDP on education (and has much higher GDP per capita) and Thailand spends around 5% (Mehrotra, 2006). To some extent this reflects Bangladesh having a relatively small public sector, rather than specific neglect of the education sub-sector (Ahmed et al., 2007).

The very different enrolment figures found from different surveys make it difficult to assess to what extent government plans and policies have been successful. They are clearly intended as statements of high-level political will, but the persistent presence of a substantial group who are not completing primary school suggests that, from the point of view of households, they cannot depend on their children’s right to education being implemented. This will be explored further in the following sections when I consider what resources poor urban households are able to access.

3.2. Context: urban poverty in Bangladesh

While the levels of poverty in the world are generally perceived to be falling, within this trend is a shift of poverty from rural to urban areas. During the 1990s, the global rate of urban poverty stagnated while rural poverty was falling; and the absolute numbers of urban poor people rose (Ravallion et al., 2007). In 2002 24% of those living on less than \$1 a day were in urban areas – some 280 million people. More than 900 million – almost one in three urban dwellers – are classified as slum dwellers (UN Millennium Project, 2005), living in informal settlements with poor quality housing, limited access to services, and often with insecure tenure (Baker, 2008).

Bangladesh is no exception to these trends, although a large majority of people continue to live in rural areas. Its urban population was 5% of the total in 1960, 15% in 1980, and 28% today. The number of urban people below the national urban poverty line stayed around 10 million between 1992 and 2005, while the number of rural people below the rural poverty line dropped from 51 to 46 million during the same period. The urban poor, these figures suggest, make up a substantial and growing part of the country's total number of poor people¹³.

In this section I present some context on the rise of urban poverty in Bangladesh and, where information is available, in Dhaka in particular. The following section goes into more detail by examining what resources poor urban households can access. For both sections, I draw on existing survey research listed in Table 2, as well as qualitative studies such as Rashid (2007a) and SIDA Bangladesh (2010).

Table 2. Slum and urban migrant surveys in Bangladesh

references	sampling	when	focus
Afsar (1999, 2004, 2005)	600 randomly selected households in Dhaka City – multistage random sampling	1991/98 (different samples)	Rural-urban migration
Bhuyan et al. (2001)	500 people, aged 15 or over, who migrated during the past 10 years. (Appears to have sampled people working outside the home only)	Not stated	Rural-urban migration
Ullah (2004)	197 randomly selected migrants and their families from 2 villages in Dinajpur district	2003	Reasons for rural-urban migration
CUS et al. (2006)	Mapping of all slums in Dhaka, Chittagong, Rajshahi, Khulna, Sylhet, and Barisal. Interviews with key stakeholders in each slum	2005	Population, size and growth of slums; environment and infrastructure
M.S. Hossain, (2006a, 2006b, 2008)	500 households in 9 clusters in Dhaka, with additional in-depth interviews.	2002-03	Urban poverty; adaptations of the urban poor
Kabeer and Mahmud (2009)	Survey of 297 households in 2 slum neighbourhoods in Dhaka; additional in-depth interviews and focus group discussions	2001	Education and intergenerational transmission of poverty
World Bank (2001)	Representative sample of 2400 households in 4 cities, including an indicator for whether they	2000	Urban service delivery

¹³ Figures based on my analysis of data from World Bank (n.d.). Poverty rates are derived from Household Income and Expenditures Surveys (HIES); these likely exclude slums and so underestimate urban poverty (see footnote 15).

lived in a <i>bosti</i> (slum)			
IFPRI (2003)	Vulnerable urban households in Jessore and Tongi	2000	Environment, livelihood security, impact of poverty on women and children, coping strategies
Aparajeyo (2005)	1000 respondents in 4 Dhaka slums	2002-04	Slum observatory; impact of development programmes
Benson (2007)	1900 households in slums in Dhaka, Chittagong, Khulna and Rajshahi	2006	Food security

Some 12 million people lived in Dhaka in 2005¹⁴, a number that is projected to grow to 17 million by 2015 (World Bank, 2007; UN-DESA, 2011). Depending on the poverty line and data set used, between (approximately) one third and one half of Dhaka's residents can be characterised as poor. This is a lower ratio than in Bangladesh's other large cities (Chittagong and Khulna) and lower than in rural areas (Murgai and Zaidi, 2005). But inequality is higher in Dhaka than elsewhere; per capita expenditure amongst the richest quintile is estimated to be more than 6 times that of the poorest quintile (Baker, 2007)¹⁵. Ali and Begum (2006) report the human poverty index¹⁶ for Dhaka district as being among the worst in the country, and as having worsened during 1995-2003.

An estimated one-third of the city's population live in slums, where typical incomes were around Tk. 3000-4000 per month (CUS et al., 2006; see Box 3). The same study finds that between 1996 and 2005, the slum population doubled, the number of slum communities increased by 70%, and the estimated proportion of the city's population living in slums increased from 20% to 37%. Although many of the slums around today must therefore be new, there is also a long history of slums in Dhaka. 12.5% of Dhaka's slums were established before 1971, according to the CUS et al study, and a further 24% during the 1970s. Many are likely to

¹⁴ Dhaka is the name of a division (Bangladesh's top-level administrative region, of which there are seven), of a district within Dhaka Division, and of the capital city which occupies about a fifth of Dhaka Division. Unless stated otherwise I am referring to the city in this paper. To add to the confusion, though, there are several quite different definitions of the city borders. The area under the jurisdiction of the city government, Dhaka City Corporation is 276 km² and had a population of 7 million in 2008 (BBS, 2009). The much bigger Dhaka Statistical Metropolitan Area consists of the city corporation and the peri-urban areas beyond it, and stretches beyond Dhaka District into neighbouring districts, with an area of 1353 km² and a population of some 12-13 million in 2008 (BBS, 2009). The primary research that this paper is based on was conducted entirely within the City Corporation. With secondary sources it is not always clear what definition of the city is being used but I have tried to be precise where possible.

¹⁵ Moreover, the data on house sizes cited in the same reference suggested that the poorest quintile in the HIES lived in houses of, on average, 200 square feet. Most slum houses are smaller than this; in CUS et al. (2006) the typical size was 76-100 square feet. This raises doubts about whether the HIES includes slum dwellers in its sample, since if they were they would dominate the poorest quintile.

¹⁶ The human poverty index is a composite index based on: probability at birth of not surviving to age 40; adult illiteracy rate; population not using improved water sources; proportion of underweight children under age five.

have been created during the huge migration towards Dhaka just after the 1971 war and during the 1974 famine (Mahmud and Duyar-Kienast, 2001; Ullah, 2004). Up until the 1990s, slums tended to be set up in central Dhaka where work opportunities, especially in construction and in the rapidly-growing garment industry, were most available. More recently, new slum building has moved towards peripheral areas, and inhabitants of some older slums have also been forcibly resettled to the edges of the city (ibid.).

Slums in Bangladesh are built on both government and private land, and as elsewhere are characterised by low-quality housing, overcrowding, poverty, poor environmental conditions, and limited access to services. While most of Dhaka's slums are small, with less than 100 persons, a few are extremely large, including the Korail slum which has an estimated population of over 100,000, and the group of slums at Kamrangirchar, with a total population of over 400,000 (CUS et al., 2006). Bangladesh has one of the highest population densities in the world, at 2600 persons per square mile, but the density in slums is almost 200 times higher (UN-HABITAT, 2008). Houses are usually made of flimsy materials, and are vulnerable to fire and to monsoonal rains. Many slums are built in low-lying areas and are prone to flooding; most do not have sufficient drainage to avoid water-logging during the rainy season flooding (CUS et al., 2006; Baker, 2007).

Box 3. Defining slums

The terms slum, *bosti*, shanty town, and squatter settlement are used more or less interchangeably as a way of describing informal urban settlements inhabited by poor people in Bangladesh. Several organizations offer more precise definitions of slums for the purpose of measurement and identification. UN-HABITAT, the United Nations agency for human settlements, uses the word to refer to a wide range of low-income settlements and poor human living conditions and proposes as a simple definition, “a heavily populated urban area characterised by substandard housing and squalor” (UN-HABITAT, 2007, p. 1). For statistical purposes it defines a slum household as

a group of individuals living under the same roof lacking **one or more** of the following conditions: access to improved water; access to improved sanitation facilities; sufficient living area (not more than three people sharing the same room); structural quality and durability of dwellings; and security of tenure (UN-HABITAT, 2008, p. 92).

In practice, security of tenure is less easy to measure or monitor, so data tend to use the first four conditions. UN-HABITAT estimates that over a third of the urban population of the developing world (around one-sixth of the total population) live in slums – some 810 million people.

Using this definition, UN-HABITAT finds that Bangladesh has 69% of its urban inhabitants living in slum households, the highest prevalence in Southern Asia (UN-HABITAT, 2008). In

most cases these households are classified as slum households because they lack durable housing or sufficient living area; smaller numbers lack sufficient living area. Many of them (29.7% of all urban inhabitants) endure two of these deprivations, and some (13.6%) endure three or more (UN-HABITAT, 2008, p. 101). In large cities the proportion living in slum households is even higher, at 79%.

The UN-HABITAT definition, which stems from a broad concern with the quality of housing, overcrowding and basic services, is arguably broader than what most people on the ground would call a slum, and is also odd in defining slums at the individual household level rather than the level of whole areas. The Centre for Urban Studies (CUS) in Bangladesh uses a narrower description: a slum is a neighbourhood or residential area with at least 10 households with

four of the following five conditions prevailing within it: predominantly poor housing; very high population density and room crowding; very poor environmental services, particularly water and sanitation facilities; very low socioeconomic status for the majority of residents; lack of security of tenure (CUS et al., 2006, p. 11)

By this definition, and with a research method involving a mixture of satellite photography and key informant interviews, 35% of the people of the six main Bangladeshi cities lived in slums in 2005. I used the CUS list of slums to choose study areas for the purposes of this study.

Rural-urban migration is thought to underlie much of Dhaka's growth, and of the growth of slums in particular. Between 1995 and 2000, the city grew at a rate of over 4% per year, and in 1991 46% of its population was born outside the metropolitan area (Baker, 2007). According to UN-HABITAT (2008), 60% of Dhaka's population increase is due to in-migration (the period for this figure is not stated). In one study of people living in slums (M.S. Hossain, 2006a) only 11% of respondents were born in Dhaka district.

Migration is commonly attributed to extreme rural poverty, landlessness, land erosion, and large wage differentials between the city and the countryside. According to the surveys of reasons for migration cited by Baker (2007), the main reason that people gave for having migrated was to find a job. Job prospects in the village were seen as insufficient, and they perceived that there would be a high probability of finding a job and earning a higher income in the city. Smaller numbers of migrants cited a perception of better education and other services as their reasons for migration (Baker, 2007; Bhuyan et al., 2001).

It is not always the poorest who migrate, however (Bhuyan et al., 2001). Wealthier and better-educated people migrate from rural areas to take advantage of educational and career opportunities available in the cities. There may also be costs of migrating – and of finding a job in urban areas – that stop the poorest from following this route. One study (Afsar, 1999) found

that 90% of the migrants in Dhaka came from four districts: Comilla, Faridpur, Barisal and Dhaka district. These were not necessarily among the poorest districts in the country but had a strong history of out-migration.

Migrants may be better off post-migration in terms of income and access to jobs. Studies of migrant employment suggest that migrants are right to expect better job opportunities in the city. Afsar's study found that "three out of five slum dwellers and squatters found work within a week of their migrating to Dhaka city" (Afsar, 2005, pp. 11-12). However some migrants cite "lack of jobs" as a drawback to their new locations (Bhuyan et al 2001, cited in Baker 2007), suggesting that they may not find the abundance of jobs they were expecting.

Afsar's ongoing study of rural-urban migrants also finds that most heads of household who migrated eventually acquired "skills and support from social networks allowing them to enter the skilled construction and manufacturing sectors, run small businesses and rent shops, own rickshaws and other assets, and build houses" (Afsar, 1999, pp. 244-5). Migrants who had stayed for longer tended to invest more than recent migrants in nutritious food and children's education (ibid). It is not clear from the literature whether migration tends to affect children's education positively or negatively¹⁷.

It should not be assumed that all poor urban people, or all those living in slums, are recent migrants, nor that they are likely to return at some point to rural areas. International statistics suggest that, while migration is undoubtedly a major factor, the main contributor to urban population growth is natural population increase within existing cities (Tannerfeldt and Ljung, 2006), and the growth of villages into towns is also significant (UNESCAP, 2007). Studies in Bangladesh suggest that people living in slums are a mixture of recent migrants and people whose families came to the city several generations ago. In M.S. Hossain's (2006a) study, although most slum dwellers had been born outside Dhaka, many of these had been there for a long time: around a fifth had lived there for more than 31 years. 88% were residing permanently in the city. A study of four Dhaka slums in 2002-04 found that around 25% had migrated in or before 1980, and a further 34% during 1981-1990 (Aparajeyo, 2005, p. 41).

3.3. What resources do poor urban households have?

In section 2.1 above I described a framework categorizing the resources of poor urban households, under six headings. Here I examine the evidence from previous studies on the forms and amounts of these resources that poor urban households in Bangladesh, and in Dhaka

¹⁷ See Giani (2006) for a discussion. Education would be disrupted both by the act of migrating, and by the poor availability of schools to migrants who end up in urban slums. On the other hand access to decent-quality schools is often also poor in rural villages, and some families may have better educational options after migrating.

in particular, can access. These provide a point of comparison for the results of the present study (see chapters 5 to 8), and also help to generate some hypotheses and highlight some unresolved questions for the research. The latter are discussed in section 3.7 below.

3.3.1. Wealth and productive capital

It is easy to assume that poor urban households have no significant wealth or productive capital. The literature suggests, though, that some do own quite substantial assets. Even for those whose assets are very limited, they may play an important role in smoothing consumption or responding to a sudden deterioration of income. In Benson's (2007) study, ownership of goods that would help directly in earning income was very low. 6.5% owned a rickshaw or van; even smaller proportions owned a motorcycle, auto-rickshaw, sewing machine, or bicycle. Many did not own basic and common items of furniture such as a table or chair. However 75% owned a fan and 36% a television. M.S. Hossain (2006a) estimates the average value of household assets in his study at around Tk. 7000. However there was a large amount of variation in asset ownership; for 38% the value was under Tk. 2000.

The studies suggest that approximately 10-12% of slum households in Dhaka own their own home (Benson, 2007; CUS et al., 2006); the vast majority rent, although a further minority (around 11% in the CUS et al., 2006, study) were living rent-free.

In the Benson (2007) study only 2.4% in Dhaka said that their incomes were sufficient to build up savings; 10.5% said they were sufficient to save just a little, and 53.2% that their incomes only just met expenses. The remaining one-third found their incomes were totally insufficient and that they had to use their savings or borrow to meet expenses. 5% of households who had experienced economic shocks reported selling household assets in response; 6.4% reported spending savings. Borrowing money from relatives or friends, taking on more work, and reducing consumption were much more common responses.

In M.S. Hossain's (2006a) study 24% had savings. Of these 42% held less than Tk. 5000, but 37% held over Tk. 10,000. Thus a minority, but still a substantial number, did have savings of an amount that they would provide some padding from income shocks. One of M.S. Hossain's (2006a) participants explained how it was possible to amass savings, but a complicated and risky business to hold onto them:

I am running this shop and my son is working in a garment factory. Now we are saving some money every month. We have saved 20,000Tk. I can not understand what I can do with this money. It is unsafe to keep money in my house because it is not a secure place. I have given that money to one of my relatives living in the city. I want to do something with that money. I am planning to buy some agricultural land in my village so that I can

get crops. My brother-in-law is living in village and he will manage our land and ensure our share. (M.S. Hossain, 2006a, p. 179)

For households with links to a rural village, sending money to the village appeared to be a common way of saving money in the absence of a bank account or secure premises to hold cash.

Offset against their assets and savings, more than half of the households in M.S. Hossain's (2006a) study had loans. Of these, nearly 60% had loans of under Tk. 5000; but some 20% were borrowing more than Tk. 10,000, equivalent to perhaps two to four months' worth of typical household income. These households with large loans would presumably find it difficult ever to pay them back, let alone start to build up savings.

Overall, then, the picture is of considerable variation in household assets among the urban poor. Poor urban or slum-dwelling households are far from homogeneous. But a substantial proportion are in debt, or own very few assets that can be readily cashed in, or are unable to save at all.

3.3.2. Labour of household members

As noted in section 2.1, both parents' and children's labour are important resources, whose value depends upon both labour market conditions and aspects of human capital such as health and education.

Adult work

People living in slums largely work in the informal sector. Main occupations for men include rickshaw pullers and other transport labour; street vending and petty trading; and construction (Aparajeyo, 2005; Baker, 2007; M.S. Hossain, 2006; Opel, 2000). Predominant female occupations were housemaid or domestic servant; garment factory worker; and manual labour such as brick-breaking (Baker, 2007; Salway et al., 2005). A small proportion are salaried service workers (Opel, 2000).

Unsurprisingly, the wages in these types of work are low. Slum studies during the late 1990s and early 2000s have found average household incomes in the range Tk. 3000-5000 per month (Afsar, 2004; Aparajeyo, 2005; CUS et al., 2006; S. Hossain, 2006). These average incomes, if earned by a four-member household, would put it below international poverty lines. The CUS et al. study also finds considerable variation within slums, with some reportedly earning much less.

The market value of household labour is likely low partly as a result of the low levels of education and often poor health of adults living in slums. In the MICS survey, only 52% of young women (aged 15-24) living in slums were literate, compared to 77% in urban areas as a whole and 70% in rural areas (UNICEF, 2010). In slum households in Dhaka in Benson's

(2007) survey, 34% of household heads, and 27% of the senior women in households with adult female members, were literate. 61% of respondents in M.S. Hossain's (2006a) study had never been to school.

In Bangladesh as a whole, women are much less likely to work outside the household than men, and when they do typically earn much less (Baker, 2007; World Bank, 2007). Rashid's (2004) survey of married adolescent women in a slum finds that 83% did not work outside the home; many cited "husband's disapproval, pardah and family prestige" as the reasons (p. 75). However, this study also finds that "increasing poverty and hunger means that poor married adolescent women ... are willing to forgo pardah and cultural restrictions to work outside the home"; nearly 10% worked in garment factories and 3% worked as domestic servants. Many were involved in income generating activities inside their homes such as sewing and embroidery. A survey reported by Salway et al. (2005) and conducted in 1997 found that 40% of married women in one slum had worked in the past month and a further 27% had worked in the past. In Benson's (2007) study 46% of all females aged 5 and older worked at home and only around 22% were working outside the home. In the 2007 DHS (NIPORT et al., 2009), 28% of women were employed, although this rose to 38% among the poorest wealth quintile. One area in which women do work in large numbers is the ready-made garment industry (see Box 4, below).

Health problems are often rife in slums, and this has an important effect on people's ability to draw a reliable income from their labour. In Afsar's (2004) survey 34% of household members in slums had been sick at some point during the past month – nearly double the rate found in national surveys. Most suffered from fevers and coughs, suggesting an impact of air and chemical pollution in Dhaka. A study of the effects of illness on work in Dhaka slums found that ill health was the most important cause of a worsening in financial status, and female-headed households were particularly vulnerable to losing income due to ill health. Typically they responded by reducing expenditure or taking out loans (Pryer et al., 2005). A study of rickshaw drivers in Dhaka (Begum and Sen, 2005) found that their incomes decline with age, as the physically demanding work, combined with poor nutrition, takes its toll. The rickshaw drivers were also vulnerable to acute illnesses, a single episode of which could easily wipe out any savings a household might have.

At low levels of income, much of household members' wages will tend to be devoted to food and shelter, leaving little for other expenditures such as health and education. Benson's (2007) study of food security finds that 23.2% of male-headed and 27.4% of female-headed households in Dhaka slums consumed less than 80% of recommended calorie requirements. Major factors in food security include secure wage employment and the number of dependent household

members. Baker (2007) notes that poor households in Dhaka spend the bulk of their (very low) income on food, leaving a tiny amount (on average, 3.2% of total expenditure, or less than US\$0.50 per household member per month) for both health and education expenditure.

This expenditure is also spread over a larger number of children, since the proportion of children is higher in the poorest quintile. In 2008 there had been a period of rapid increases in food prices, meaning that education expenditure in urban areas – where most households do not produce their own food – would likely be even more squeezed.

Child work

Sources such as Delap (2000) suggest that child work, even at young ages, is common in urban Bangladesh, meaning that the opportunity cost of attending school is likely to be high. In Afsar's (2004) survey, one third of children in slums were working and this remained unchanged between 1991 and 1998. Baker (2007) reports that "in the poorest households [of Dhaka] with child workers, earnings from the children are significant, representing about one third of total household income" (p. xiv).

Delap (2000) finds that for both male and female children, participation in income generating work increases with age, with boys participating in income generating work from an earlier age than girls, while girls were more likely to be engaged in housework. Amongst her sample of ten households in a slum in Dhaka, all of the boys aged 13-15 were in income-generating work, while the girls of the same age were involved in a mixture of household and income-generating work. While the direct financial value of children's work, such as firewood gathering, may be low in itself, Delap notes some of the social and cultural reasons it is likely to continue: "many bustee [slum] residents felt that the insults and suspicion generated by adult firewood collection would mean that adult participation in such activities would act as a barrier to network formation. Such networks are important for access to resources including loans and employment information..." (pp. 731-2).

In one study, nearly 70% of urban parents with working children said their living standards would fall if the children stopped working; 9% said it would be hard to survive. This suggests a large number of households in which child labour is important but possibly avoidable, and a smaller number for which it is more like a necessity. Urban children were overall less likely to work – around 12% of children aged 5-14 years do – than those in rural areas, although the rates in rural areas dropped more quickly between 1995-96 and 2002-03 (Ali, 2006).

In the report on the 2004 DHS (DHS, 2005), children aged 8-14 were less likely to be in economic activity in urban than in rural areas. However 13% of urban male children were in economic activity, in a few cases combining it with education, compared to under 3% of urban

females. The explanation may lie in some combination of more work and less educational support (in the form of school stipends) being available for male children in urban areas. MICS data from 2009 found that 6.5% of children aged 6-14 in slums were working and not attending school (UNICEF, 2010). While low in absolute terms, this was much higher than the 3% in urban areas generally and 2.2% in rural areas. In slums, roughly equal proportions of boys and girls were working, whereas elsewhere boys were more likely to be engaged in child labour than girls.

The evidence thus suggests that child labour is undertaken by relatively small minorities, even in slums, although some caution must be attached to this conclusion given the likelihood of under-reporting. It is also unclear to what extent the need for income from child labour precedes decisions not to enter school or to drop out from school.

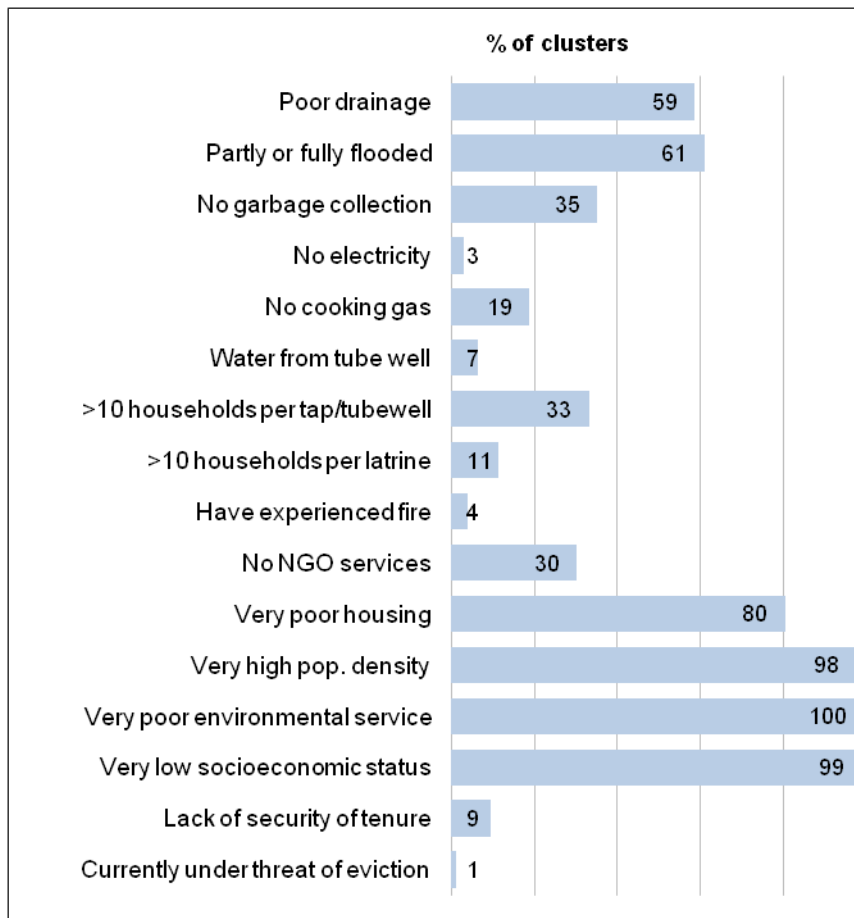
3.3.3. Information

I have found little evidence on the extent to which people in slums are able to access the information they need to live generally and to access education specifically. In rural Bangladesh, Asadullah (2008) finds that mother's 'social knowledge' (as measured by, for example, knowing the names of local and national politicians) is an important predictor of children's education, even controlling for the mother's education and indicators of social capital.

There is some evidence on the importance of information for work. Opel (2000) notes the importance of information, accessed through social networks, about jobs, sometimes outweighing education or money as a factor enabling people to get those jobs. Migrants who come to the slums in search of jobs often have information prior to their arrival, and draw on social networks both for the information and to get the job (Afsar, 2004).

3.3.4. Environmental resources

As noted above, slums are extremely densely populated. Typically houses are just 75-100 square feet in size and consist of a single room (CUS et al., 2006). Figure 6 lists some of the environmental problems facing people living in slums, and the estimated frequency of these problems in the CUS survey. Very high population density, very poor environmental services and very low socioeconomic status were nearly ubiquitous characteristics. Poor drainage, flooding and very poor housing also affected most slums. Lack of electricity, cooking gas, tap water, garbage collection and NGO services each affected a minority of slums, as did insecure tenure, threat of eviction, and a need to share water sources and latrines with large numbers of other households.

Figure 6. Problems affecting Dhaka slums

Source: CUS et al. (2006)

In the Aparajeyo study areas, environmental conditions reported by a majority of respondents included damp, water lodging, over-population, and narrow or muddy roads (Aparajeyo, 2005, p. 27). Most dwellings consisted of a single room and on average were around 90 square feet in size. Over 90% had access to electricity (p. 30) although in most cases this was through an illegal connection. Around 40% had gas connections, with the rest using other fuel sources with potential for health hazards. Around 70% of households under the poverty line in Dhaka do not have access to piped water and use tube wells; 90% do not have access to a sewage line (Baker, 2007). Rashid (2004) documents conditions in one slum including long queues for water. SIDA Bangladesh (2010) notes that home environments and constant street noise in slums were often not conducive to learning.

As noted above (section 3.1.2) previous studies have found relatively few NGOs operating within slums, although this does not rule out NGOs outside slums serving slum residents, and the number of NGOs offering education appears to be rising (Baker, 2007; SIDA Bangladesh, 2010). The urban scorecard survey (World Bank, 2001) finds that 59% of urban Dhaka residents had problems getting into school due to limited numbers of seats. Conditions in slums present a number of physical barriers to providing services, especially the narrow and muddy roads which

often get flooded, which would make it difficult for children and education staff to get around; and vulnerability to hazards such as fire (Baker, 2007; CUS et al., 2006).

A survey (Rashid and Hossain, 2005) of NGOs and donors about delivering services in slums in Bangladesh found a host of obstacles. Donor agencies such as UNICEF identified as a problem an inability to serve enough of the slum population. NGO interviewees identified lack of appropriate infrastructure as a key constraint to education service provision in slums. The number of schools was reported to be far too low compared to the number of children, and that government schools typically have no scheme to accommodate the volume of urban slums students in their areas, who may face particular problems such as the need to work. Physical access to NGO education centres was also reportedly made more difficult by drainage and flooding problems during the monsoon season; fear of gang violence was another obstacle to attendance.

Violence, often linked to political conflicts, is recognized as an issue in Bangladesh slums. The study by Kabeer and Mahmud (2009) found instances of children not being allowed outside because of outbursts of fighting, including gunfire, in a Dhaka slum. A “pervasive state of lawlessness and disorder kept parents in a state of constant anxiety about the safety of their children” (p. 16), leading them to take measures such as taking children to work with them or asking older children to look after younger ones.

3.3.5. Recognized rights

People living in slums often do not have their official rights met with respect to government service provision. Rashid and Hossain’s (2005) survey identified three major constraints to delivering services in slums: lack of a policy providing specifically for the urban poor; eviction of slum residents; and the role of *mastaans* (local leaders who vary from relatively benevolent figures to mafia-like criminal gang leaders, and usually have close links with political parties and local police). Government is generally unwilling to take account of households who are residing in an area illegally; but the insecurity of land tenure in slums and constant possibility of eviction also creates problems for NGOs, who stand to lose their investment if they set up permanent structures such as schools. Teachers employed locally may also have to move in the event of an eviction.

As noted above, the numbers of schools in Dhaka does not seem up to the number of students. Ahmed et al. (2007) notes, nationally, that refusal to admit a child was a frequent reason for never enrolment, especially in schools that had earned a good reputation or were in densely inhabited locations. Within the school, some parents felt that teachers had a bias in favour of children of the well-off; discouragement and undermining children’s self-esteem were seen as a common problem.

More generally, slum households have to deal with multiple holders of power including local politicians, police, criminal gangs, and mastaans. Each of these may be able to threaten violence as a sanction, and slum residents have little recourse to the police. Indeed, Banks (2008) reports one study where nearly 40% of residents had faced some form of police harassment, and had been made to pay bribes. Mastaans usually control the provision of amenities such as latrines, tube-wells, water and electricity. Sen and Hulme (2004) refer to this situation as a “mastanocracy”, with potentially both positive and negative effects for urban dwellers:

an urban political economic culture where informal rights are prevalent. By informal rights, we refer to socially instituted claims which although lacking any legal status, are more than mere ad hoc arrangements (Sen and Hulme, 2004, p. 100)

NGOs wishing to set up services in the slum also have to gain the permission of the mastaans. Rashid (2004) documents slum residents being forced to vote for the party with which local mastaans are connected, a culture of “gang wars and violence” (p. 66) in which young men are particularly likely to get involved, and police persecution.

This violence has a particular effect on girls and young women. Amongst Rashid’s (2004) survey of 153 married adolescent women, the average age at which they had married was 13.5 years. Rashid notes that “the combined effects of poverty and the crime-ridden environment of gang violence and sexual harassment were important incentives for early marriage” (p. 119) as well as tradition, control of sexuality, and the fact that dowries were smaller for younger brides.

3.3.6. Socially mediated access to the five other resources

A number of studies have shown the importance of resources accessed through social networks for poor urban people in Bangladesh, especially those who migrate from rural areas. For instance Afsar’s (1999; 2004) work documents the importance of social networks for getting jobs and gaining skills. Opel (2000) similarly finds that social capital – in the form (for example) of information accessed through social connections or the ability to provide references – can dominate financial or human capital in allowing access to the scarce jobs over which rural-urban migrants fiercely compete. Women are particularly hampered by the labour market’s close relationship with social networks, because their mobility is socially restrained and their housekeeping roles leave little time for network building.

It appears that many people living in slums have fairly large networks of friends and family. In M.S. Hossain’s (2006a) study, a third of respondents had kinship networks in the city, and this type of network was more common among the “hardcore poor” than others in the survey. Male respondents, those under 30, and literate respondents, also had more social networks than female, older and illiterate respondents, respectively. However there were no significant differences between recent and longer term migrants. 28% were involved in community

organisations. Hossain finds that the urban poor often relied on these networks, among other things, for borrowing money, since they had very limited access to formal sources of credit.

But, as noted in section 2.1, paying attention to the number of social connections may not tell us very much about the resources that households are able to access through their networks.

Relationships with other people who are equally poor, though no doubt valued, are limited in the material benefits they can bestow. Rashid (2004) emphasises the value of “networking and small reciprocal exchanges” (p. 83) that took place between women tenants in her study, and between landlady and tenants, such as sharing food and assistance with household chores.

However she also notes the stress that poverty put on people’s relationships, with arguments and fights between owners and tenants, neighbours and among kin breaking out frequently, usually over food and money.

3.4. How do they use these resources for education?

As the previous sections have sought to show, poor urban households in Bangladesh have slender resources at their disposal on which to base their livelihoods. This section will examine how they nevertheless have to use a portion of these resources to overcome various barriers to reaching valued educational outcomes. It looks at the three ways identified in section 2.2 in which education can make demands on the household’s resources: meeting the costs of education, managing the relationship with the school, and supporting children’s learning. It also considers how these demands would vary between different types of school and at different levels of the education system.

3.4.1. Covering school costs

The above discussion (sections 3.3.1 and 3.3.2) has made clear how constrained the budgets of poor urban households are. They have little labour income and few savings. In most cases they have some assets that they might sell in an emergency, though the total value of these is small. In many cases they have debts towards which they have to make repayments. Thus any costs associated with schooling may influence decisions about the amount and type of education that a child will receive.

One report finds that 90% of parents (in a national representative sample) reported incurring expenditure of some sort, and on average the annualized expenditure was Tk. 1000 per child in school, equivalent to about 2% of average household income (Chowdhury et al., 2001). The authors detected no difference between girls and boys, but wide variation between different school types, with expenditure highest for children attending primary schools attached to secondary schools, and lowest for those attending non-formal education. World Bank (2001) found that the lowest income group in Dhaka (households with monthly incomes less than Tk.

2000) were paying (illegal) school fees of around Tk. 900. For households in the next income group (Tk. 2001-6000), expenditures were much higher: Tk. 2300 on fees (in Dhaka). In both cases, the fees and other costs are a high proportion of these households' incomes.

One point at which students have sometimes been charged in primary schools is in gaining entry to examinations for scholarships to secondary school. Primary schools are supposed to select 20% of their class 5 students for a scholarship examination based purely on academic merit, but in practice Ahmed et al. (2005) finds that the selected students were expected to pay for the special coaching they would receive from teachers in preparation for the examination. SIDA Bangladesh (2010) also reports that this was a problem prior to 2009, and that some parents were able to circumvent the scholarship exams by bribing the principal or moving the child to a new school.

Results from a national representative Social Sector Performance Survey carried out in 2005 show considerable variation between households within each type of school. Although private tuition formed the single largest component of mean expenditure, it was only paid by 44% of households in government schools (and a smaller proportion in the other types of school studied). Among these households that paid any money on private tuition the average amount paid was over Tk. 1000. Transport costs were only counted by a small proportion of households (12% for those with children in government schools) but for those that did have to pay for transport, this formed a large expenditure item (FMRP, 2006).

As well as average cost levels of schooling, the way these costs fit in with the household's livelihoods strategies has to be taken into account. For instance Ahmed et al. (2007) reports that "poorer parents who sent their children to school often fell into seasonal economic difficulties. They then could not meet different school expense like examination fees and cost of school dress or copybooks..." (p. 38). Research based on the CREATE survey (see section 4.2.3 below) finds that children were more likely to drop out if their parents had lower income, but also if their parents' income growth between 2007 and 2009 was lower (Sabates et al., 2010).

While fees charged in government schools are generally illegal, private schools – usually called kindergartens at the primary level – are free to charge students. However the amounts charged may be modest for schools operating in poor areas. The private schools discovered in the Reality Check study (SIDA Bangladesh, 2010) charged Tk. 100-200 per month, little more than the cost of hiring a private tutor to supplement classes at a GPS. Arrangements for delayed fee payment and subsidised payments were common.

Private tuition is widespread in Bangladesh and represents one of the largest costs. In the Education Watch 2003/4 survey, private tuition had "become a norm": 43% of children had

private tutors, paying an average of Tk. 152 per month (Ahmed et al., 2005). This was a norm that many children could only aspire to, however; first generation learners, the group likely to benefit most from private tuition, were least able to afford it. Nath (2008) notes that the incidence of private tuition seems to have risen between 2000 and 2005, and is more common among urban than rural students. In 2005 52% of urban and 28% of rural students received tuition. Private tuition was more common in wealthier families and those where the parents were more educated, and increased by grade: in urban areas in 2005, 44% of class 1 students but 62% of grade V students received tuition. Children in kindergartens or primary schools attached to secondary schools were much more likely to have private tuition than those in government primary schools, and tuition was rare amongst those in non-formal education (Table 3). Private tuition was often the main source of private expenditure on education. The households in which a child received private tuition spent 46% of total private expenditure for education of that child on supplementary tutoring. According to the Social Sector Performance Survey (FMRP, 2006, p. 85) private tuition forms the single largest part of household expenditure on education in Bangladesh, amounting to between 27 and 34%.

In the Reality Check Study private coaching was important in most of the study areas, including at coaching centres. The study notes that coaching varied widely in terms of quality and methodology. One coaching centre in a slum was “disappointing”:

“A new coaching centre has opened at the entrance to the central slum and employs four teachers (one from a private school, one from a RNGPS and two honours final students) who get paid Tk1,000 per month for 2 hours per day 6 days a week. It charges Tk200-400 per month depending on ‘the capacity to pay of the student’. the quality of teaching was poor and it appeared to be more like a homework centre rather than a centre where children received active tutoring. ... pupils sit in regimented rows at crowded desks/benches and the tutor sits at the front, half asleep and is basically supervising homework.” (SIDA Bangladesh, 2010, p. 104)

Tietjen (2003) comments that private tuition acts “both as means of compensating for poor quality instruction in school and of augmenting teachers’ salaries”, and reports findings from a World Bank survey, in which one quarter of households “indicated that teachers would inflict some sort of retribution (not teach in school, give poor grades) if not engaged for private tutoring” (p. 19). Nath (2008) concludes that private tutors for primary school students have become a “well accepted norm”. In discussions, parents expressed the view that “If a school functions well, private tutoring is unnecessary, but the schools do not function well” and that students were not able to ask teachers questions, but were able to do this in private tuition (p. 19).

Table 3. Percentage of students receiving private tutoring, 2005

school type	GPS	RNGPS	non-formal	madrassa	kindergarten	secondary attached
% receiving tuition	32.1	28.5	12.3	20.2	69.3	63.2

Source: Nath (2008) using data from the Education Watch 2005 survey

In summary, the costs of education vary a lot between households, locations and school types, but it is very common for households in Bangladesh to pay at least some fees for primary school, as well as costs such as transport and uniforms. It is not clear in a poor urban context whether these costs are likely to be a major factor influencing education decisions. Paying substantial sums for private tuition seems in many studies to have been seen as a norm and a necessity for learning, but it is still far from universal, because many parents cannot afford it, and possibly also because it is seen as less necessary in some types of school than others. The variation in amounts spent on education suggests that parents have some discretion about how much to invest, and this investment may influence the quality of educational outcomes and chances of gaining qualifications.

3.4.2. Managing the relationship with the school

How do poor urban parents in Bangladesh find a school, gain admission to it, and manage their relationships with the teachers, headmasters and local officials who have control over their children's schooling? Large differences in class, power, and education, would likely put parents at a disadvantage in this process. Institutions of public accountability generally are weak for the urban poor in Bangladesh (World Bank, 2001; Baker, 2007).

Based on focus groups and interviews with parents, teachers, students and other stakeholders, Ahmed et al. (2005) reports that:

there is an absence of common criteria and understanding regarding quality of education and how a school's performance should be judged. The concept of accountability ... appeared to be lacking. Absence of models or knowledge about effective schools, and high quality teaching-learning practices also may have led to the acceptance and tolerance of the familiar (pp. 33-4).

According to teachers in the same survey, it was common for first generation learners to lose interest in school, and these children were likely to be verbally and physically abused for lagging behind and "not behaving properly". The Reality Check study (SIDA Bangladesh, 2010), conducted in both rural and urban areas, finds that many parents felt uncomfortable and embarrassed about interacting with schools because of their own lack of education and felt that teachers knew what was right.

Ahmed et al. (2007) notes, nationally, that refusal to admit a child was a frequent reason for never enrolment, especially in schools that had earned a good reputation or were in densely inhabited locations. Within the school, some parents felt that teachers had a bias in favour of children of the well-off; discouragement and undermining children's self-esteem were seen as a common problem. Even for NGO schools, different groups of slum residents may find they have different degrees of access. Residents of one slum interviewed by Banks (2008) asserted only the most powerful and those with contacts could access the best NGO schools.

3.4.3. Supporting children's learning

In Chapter 2 I gathered under the heading 'supporting children's learning,' uses of resources such as the child's effort in going to school, parents' work in monitoring attendance or helping a child with homework, parents paying for private tuition, parents and others ensuring that children receive adequate nutrition and healthcare from an early age, and parents and schools providing an environment that minimizes exposure to stress, danger and violence.

As seen above, parents' ability to help with homework, and provide private tuition where their own help falls short, is important for keeping a child in school in urban Bangladesh, as elsewhere (Nath, 2008; Sabates et al., 2010). It has also been established that this type of support can be quite costly in terms of the household's envelope of resources. Private tuition can involve paying relatively large sums of money. As many parents are working they may have little time for helping children directly with their studies. Although many women do not work outside the home, they are likely to bear a heavy burden of domestic work because of conditions in the slum such as shared water facilities and poor transport infrastructure. In addition, adult literacy rates are often low, which would also make it difficult for parents to help with school work and push them towards greater reliance on private tuition.

There is also evidence that going to school is not always pleasant and involves an effort. SIDA Bangladesh (2010) finds that it was fairly common for children, especially older boys, to leave school because they didn't like it or were failing. Children had alternative ways of spending their time such as working or simply 'loitering' that were, for some, more attractive than schooling, even though they were apparently not under pressure from their families to earn money. Punishment and beatings were also sometimes given as reasons for leaving school. Education Watch 2003/4 found that children not liking school was an important reason given for never-enrolment and drop-out, especially for boys (Ahmed et al., 2007, p. 38). The 'bad things' about school most often listed by working children in Woodhead's (1999) study in five countries (including Bangladesh) were humiliation, punishment, failure in examinations, and other children bullying or laughing at them because they worked or because their clothes were dirty.

The opportunity cost of going to school for a child depends on the attractiveness of the available alternatives. As seen above, child labour may be attractive for households that badly need additional income. But the foregoing discussion suggests that neither going to school nor working, could also be an attractive alternative, from the perspective of the child who does not enjoy school. The extent to which that alternative figures in educational outcomes then depends partly on how much influence the child has over the decision process. There is some evidence that when children decide to leave school or truant, parents living in slums and working long hours are unable either to monitor their attendance or to force them to go. Kabeer and Mahmud's (2009) respondents had particular difficulty controlling the behaviour of older sons, and one respondent did not realize his son had stopped attending until his admission was cancelled, because both parents were working all day.

3.5. Benefits of education

The preceding sections have made clear the several ways that households have to draw on resources to send children to school and keep them there, resources that they have in limited supply and that could also be put to many other uses if not spent on education. Balancing these costs are both short-run and longer-run benefits of education.

Economic returns in the labour market are likely to be among the main benefits. Rates of return to education in Bangladesh have been estimated at around 7% per year on average, but lower – around 4% – for primary and secondary school than for higher education, where returns of 13% per year can be accessed (Asadullah, 2006). In other words, there are large gaps in income between the small proportion who have higher education and the rest, while the incomes of the majority with lower levels of education are clumped relatively close together. Returns in Asadullah's study were higher in urban than in rural areas, and higher for females than for males, perhaps reflecting the relatively low average level of education amongst female workers and the gender divide in the workplace.

Shafiq (2007) argues that rates of return analysis should take into account the fact that one level of education (e.g. primary) gives one the possibility of proceeding to the next level (e.g. junior secondary, where the per-year returns may be higher). Incorporating this "option value" of schooling into the model, Shafiq estimates higher rates of return: 14% for primary, 8% for junior-secondary, and 13% for higher-secondary education. Arguably, though, these higher returns will only come into action – will only be able to inform education decisions – in households which have access to secondary education.

The rates of return suggested by national studies provide only a very loose guide to the returns that a slum household might be able to enjoy. The estimated rates of return are only averages,

often concealing large variation; they may be biased by differences in ability, and there may be a lot of uncertainty about the returns for a particular individual. Poor urban households face structural constraints in the labour market that they can only overcome, if at all, by using further resources to get access to a good job. In particular, financial resources often have to be used in the form of bribes for jobs. For instance, one of Sweetser's (1999) respondents said that it was pointless sending girls to secondary school because they would still have to bribe someone to get a job; and Opel (2000) gives an example of a payment being required by an employees' union to make a temporary position permanent. As in other fields, some households can draw on resources through social networks while others have to rely more on those resources they can access directly. For instance, skills needed in garment factories can be learned from relations or neighbours, while those who lack such connections have to pay a part of their salary to their supervisors in exchange for help learning the skills (Opel, 2000). Rashid (2004) finds cases where urban poor families resorted to bribing influential local figures, such as Ward Commissioners or local political party leaders, to provide the guarantor they needed to access the mainstream job market.

While these obstacles to the labour market may block returns from education, the relationship is complicated because education may also help overcome some of these obstacles. One of Hossain's (SCUK, 2005) respondents, for example, stated that "You need a certificate, without that, you don't get a [formal sector] job. Or if you do, you have to give a bribe, but with a certificate the bribe is less" (p. 19), suggesting that part of the value of education would be in reducing the amount of other resources needed to get a job.

Overall, the literature would lead one to expect that labour market returns provide a substantial, even large, incentive for schooling, although this has to be qualified by the evidence suggesting that access to certain parts of the labour market are limited for slum dwellers and dependent on social and financial resources they may lack. Although, nationally, rates of return are higher for women, women may have more difficulty in realising the full returns because they face these labour-market restrictions in a more acute form. Similarly, opportunity costs are also subject to variation between areas and social characteristics, contributing to further uncertainty about what the incentives to schooling will be for a particular household.

Labour market constraints are particularly acute for women, although the garment industry (Box 4) may have helped to ease this constraint. Beyond this industry, the literature suggests women's work among the urban poor is predominantly in their own homes, or as domestic maids in someone else's. In either case, wage returns to education are unlikely to apply, although there may of course be other benefits (see below).

Box 4. The garment industry and returns to girls' education

Bangladesh's garment industry grew from around 50 factories in the early 1980s to over 3000 factories in 2000, employing around 1.8 million workers, and accounting for 40% of manufacturing employment (Kabeer and Mahmud, 2004). The rapid growth was the result of reductions in export controls, incentives for export-oriented businesses (Hossain and Karunaratne, 2002), and preferential trading conditions with the USA and Europe under the Multifibre Arrangement (MFA) (Gehl Sampath, 2007). Since the abolition of the MFA at the beginning of 2005, the industry has continued to flourish by moving into the lower end of the global textiles and garment market (Gehl Sampath, 2007), although it has also continued to benefit from better access to USA and European markets than China (Ahmed, 2009), probably Bangladesh's main potential competitor country.

The multinational companies that invested in the garment industry brought with them new ways of working, including a willingness to hire large numbers of female workers (Fukunishi et al., 2006). Women are favoured by garment employers specifically because of their willingness to work hard for low wages (Fukunishi et al., 2006; Kabeer, 2004) as a result of their traditional disadvantage in the labour market. Women comprise 70 to 90% of the total labour force in the ready-made garments industry (Gehl Sampath, 2007).

The structure of returns to education in the garment industry is quite particular. Garment industry wages increase by around 60% between the entry level of "helper" and the next level of "operator", a relatively easy transition to make, but jobs at the next level, "supervisor" are much rarer and harder to get, especially for women (Fukunishi et al., 2006). Better-educated workers can expect to make faster progress through the levels of the hierarchy (Amin et al., 1998). Specifically, helpers typically have less than full primary education, operators have some primary or some secondary schooling, and the majority of supervisors are people who have reached secondary grade 6-8 or completed secondary certificates (Fukunishi et al., 2006). A more recent study, by SIDA Bangladesh (2010), suggests that the educational requirements could be increasing: children saw primary education, and increasingly SSC, as necessary for factory work. Examining data between 1980 and 2000, Heath and Mobarak (2011) estimates that the arrival of garments jobs in a particular area increased schooling for younger girls, while having no average effect on the schooling of older girls.

The starting wage is above the poverty line and higher than the wages women could expect to earn in rural areas (Fukunishi et al., 2006). However the benefits and costs of working in garments go well beyond the wage structure. On the positive side, women have reportedly gained in greater economic independence, respect, social standing and "voice" in household decision-making through their access to jobs in the garment industry (Khosla, 2009). The prestige of having a "proper" job rather than casual work, sense of self-reliance from regular earnings, and access to social networks on the factory floor, are among further advantages identified by female garment workers (Kabeer, 2004). On the negative side are irregular payment of wages and

mandatory overtime (Kabeer, 2004). Working in a garment factory is potentially damaging to a woman's reputation and marriage prospects (Amin et al., 1998), and there is a risk of sexual harassment, although it is not necessarily greater than in other employment or even compared to staying at home alone (Kabeer, 2004). Long hours, repetitive work and cramped conditions take a toll on garment workers' health in the longer run (Kabeer, 2004; Khosla, 2009), and they sometimes end up spending a large part of their earnings on medical treatment (Amin et al., 1998).

For many women, work in the garment industry is specific to an early stage of their lives: before marriage or for a few years after marriage (Kabeer, 2004). As women get older and domestic responsibilities increase, because they marry and have children, they tend to leave the garment industry and seek more flexible work. The toll on their health and lack of career prospects beyond operator level may also limit their careers in the sector. In the Kabeer and Mahmud (2004) study, after leaving the garments industry, some women – those with less education and savings – ended up in more casual forms of waged labour such as domestic service, while the better off often started up their own small businesses.

The garment industry and its many employees are vulnerable to external economic shocks such as international recession, although Bangladesh's position at the low end of the market may have protected it during the recent financial crisis. Even post-MFA it has continued to benefit from better access to USA and European markets than has been allowed to China, and as these arrangements change its future is not assured. Moreover, its dependence on the presence of a large labour force willing to work for low wages suggests that its usefulness in Bangladesh's development towards a higher value added, higher wage economy will be finite. The concentration of women in lower skill jobs may also mean that as the industry becomes more technology intensive, women are left behind and gender pay gaps increase (Khosla, 2009; Paul-Majumdar and Begum, 2000).

These potentially great, but rather unsure, labour market returns are supplemented by psychological and social benefits that may operate over the shorter or longer term. Among these would be children's enjoyment of schooling. As seen above, children do not always enjoy school in Bangladesh, and may even be subject to beatings or bullying. But children in Woodhead's (1999) study also identified 'good things' about school, mentioning in particular literacy, numeracy and making friends.

But if children do not enjoy school directly, it may nevertheless be valued by both children and parents for social reasons and because of idealized visions of education. SCUK (2005) argues that material benefits of education via the labour market are outweighed by the social benefits, and by a non-specific idea of schooling for a "beautiful life":

The material pay-off in terms of job prospects does not seem to be the most important motivation, mainly because so few people ever gain access to the formal sector jobs for which schooling is supposed to equip them. ... More commonly, children anticipate schooling will provide them with non-specifically 'better' prospects in the future ... An educated child is a valued member of society whereas nobody 'gives value' to a child who cannot read or write; they may even say bad things. ... The clearest purpose of education is stated by children to be the learning of appropriate social behaviour and norms the acquisition of modern, polite manners [*sic*]. Children view the lack of education as a source of social exclusion, blocking their membership in general society. (SCUK, 2005, p. 19)

This is suggestive of education being seen as inherently valued, for its own sake; but also of education conveying cultural capital (Bourdieu, 1986) which has instrumental value in generating livelihoods. In terms of the framework in section 2.1, education is seen as capable of improving the household's future situation with respect to its recognized rights.

Education may also directly contribute towards households' ability to generate and manage livelihoods, yet in ways that are not connected to labour markets and may be altogether hidden. Maddox (2005) notes that, in a rural area in the north-west of Bangladesh, literacy practices were often conducted in a secretive way, especially by women. When asked about the social uses of literacy, when men were standing nearby, female respondents "said that they wanted to learn literacy for activities such as 'reading seed and fertiliser packets', 'helping their children' and 'not being cheated'" (p. 127). It later emerged that women wanted to learn literacy and numeracy practices for household budgeting, but that the legitimacy of this type of motivation was "fiercely contested" by others in the community (p. 127). These findings emphasise that education is often the subject of contestation and negotiation within a community; it may be valued by some members of the community in ways that are not seen as legitimate by others.

Raynor (2005) focuses on the perceived benefits of educating girls, in the context of the country's female stipend programme for secondary schooling, which became nationwide (but only in rural areas) in 1994. Perceived benefits in this and earlier studies (Das Gupta, Islam and Siddiq, 1993; Sarker et al., 1995; Sweetser, 1999; all cited in Raynor, 2005) included getting jobs; educating her own children when she becomes a mother; getting a better husband; and managing the home economy better. Potential costs include that schooling could endanger girls' morality and reputation. Some respondents in these studies were unsure whether education really improved the chances of a girl getting a job, and it was also unclear whether schooling raised or lowered the level of dowry that a girls' parents could expect to pay when she married. Raynor interviewed 41 people including six girls and six boys attending secondary school, and reports:

Both boys and girls tended to repeat the accepted view that girls' education makes them better wives and mothers, and benefits society as a whole. None spoke of individual benefits to the girls themselves. Only the mothers envisioned better things for their daughters. (Raynor, 2005, pp. 93-94)

In some circumstances education seemed to raise the level of dowry whilst in others it decreased it, and one mother noted that it might even be possible for an educated daughter to avoid marriage altogether, "because a girl who's educated can stand on her own two feet and look after herself" (p. 95). Most interviewees "linked girls' education to employment, but for men/boys the stated reason was almost exclusively financial, whereas women/girls linked employment to such things as 'independence', 'confidence', and 'worth'." (p. 95).

Thus the existing research suggests that, although there are in theory substantial returns to education in Bangladesh, in practice these may not always be easily accessed, and that a variety of non-labour market benefits, including for cultural capital and for managing a household, may take precedence when people evaluate education.

3.6. Who makes education decisions, and how?

In section 2.4 I noted that there can be differences of interest within a household. The idea of household decisions or strategies is an abstraction from processes of bargaining, conflict and cooperation that might be going on within the household. Here I briefly review the literature that has something to say about what the relative roles of mothers, fathers, and children themselves might be in this decision making process, and on how the decision is made.

Are mothers or fathers more important in making decisions about education in Bangladesh? This is difficult to answer on the basis of the current literature. In general, however, it is clear that women have fairly limited decision-making power. For instance, analysis of 2004 DHS data (Senarath and Gunawardena, 2009) revealed that most Bangladeshi women did not have the final say on making decisions on their own health care, although urban women were much more likely to than rural women.

There is likely to be important variation in women's decision making power by education, socioeconomic status and income sources. Some evidence from India illustrates how this may work (although it cannot be taken for granted that this evidence is transferable to the rather different religious, cultural and social context of Bangladesh). In Kerala, Uttar Pradesh and Andhra Pradesh, India, female autonomy is influenced by education, and in some states, by socioeconomic characteristics, and in turn affects schooling decisions as indicated by school starting age (Alfano et al., 2011). Women's autonomy is often thought to increase with their earning opportunities, although one study of home-based production in the garment sector in Ahmedabad, India (Kantor, 2003), questions whether this relationship always holds. Where

women are dependent on men to mediate social interactions and avoid suspicion or animosity, they must continue to maintain these relationships even if they can support themselves economically. As a result, income from home-based garment work does not necessarily give them greater power over decisions.

Children themselves may also have some ability to make or influence decisions about their own lives. There is usually found to be a strong belief in Bangladeshi families in the “unassailable rights of parents to determine their children’s life path” (Blanchet, 1995, p. 9, cited in Delap, 2000, p. 731). Yet Delap warns that it is “important not to see children as victims of age hierarchies, unable to shape their daily activities” (2000, p. 731). Child agency may exist in subtle and hard-to-detect forms, such as the form of negotiation described in a developed country context by (Punch, 2004).

But in the slum context child agency may also exist in rather blatant forms. Several studies attest to children making their own decision to drop out and parents having little ability to reverse the decision (Kabeer and Mahmud, 2009; SIDA Bangladesh, 2010). In the SIDA study, older boys in the central urban area mostly said they made their own decisions to leave school “and mostly on the basis of not liking school or failing. Even where economic reasons were given (in two cases only) the boys made their own decisions in order to help their families. Few experienced pressure from their families to get jobs although some were given capital to start small businesses or have been absorbed into family business” (p. 98). For girls, making such decisions for themselves appears rarer, raising the question whether they find more subtle ways to exert agency over their own lives.

Thus fathers, mothers and children themselves are each likely to play some part in the ongoing process of making the decision for a child to go to school and (each day) stay in school. To what extent are these decisions rational responses to expected benefits and costs? Kabeer and Mahmud (2009) highlight how the subjective experience of vulnerability often encompasses the feeling of being unable to make decisions beyond the most pressing ones of survival; one respondent, a rickshaw puller, asked “My head is so full of so many troubles – how my family can survive and how we can continue? Really, I have no space in my mind to think of schooling for my son, whether it is free or not” (p. 15). The burden of decision on this man can be contrasted to the everyday actions of many better-off parents around the world, where questions of survival are not at stake, and routinely sending children to school is part of a ‘livelihoods style’ or habitus (De Haan and Zoomers, 2005; see section 2.4.1) rather than something that has to be agonized over.

Although the literature is sparse on exactly how educational decisions are made, Kabeer and Mahmud (2009) also provide some insight on how parents’ aspirations with regard to their

children's future employment affect the decisions. Children whose parents aspired to salaried jobs for them were much more likely to be in school than those whose parents had other aspirations. However, it is not clear from this result whether higher aspiration leads to more school enrolment, or if staying in school longer leads to higher aspirations; causation may run in both directions.

3.7. Some conclusions and unresolved questions

This chapter has reviewed the literature on Bangladesh in an attempt to calibrate the conceptual framework from Chapter 2 to the context of poor urban households in Bangladesh.

The findings of the literature review suggest that all of the types of resource identified in the framework are likely to be important. In general, more resources will lead to more education, and more highly valued forms of education. However, it is not clear what the relative importance of these different resources would be. Possibly, cash income (including long term average income and variations in the shorter term) would tend to dominate, because of the dependence of urban households on the cash economy for their livelihoods generally, and because poor urban households tend to live close to budget limits and find it difficult to save or borrow.

The literature suggests that the benefits of education are seen as substantial by most parents. There is some suggestion, for instance from the garment industry, that it is at secondary, more than primary level, where the labour market returns are highest. More generally there are high average returns to education in labour markets in Bangladesh but no guarantee that these would be the returns available to someone from a poor urban family. Some studies suggest that non-labour market benefits such as learning appropriate manners to be accepted in society are more salient to parents in the decision process. Whereas for male children future wage considerations are important, for female children the decision also encompasses the effects of education on their future roles as wives and mothers.

The findings reported above suggest that household resources are limited so that many are not able to invest as much as they would like; they are not able to choose the level of educational investment that would maximize their net benefits. As a result, I expected the results of the present study to show that households with more wealth and income invest more in their children's schooling.

The earlier research also suggests that parents are usually in charge of any explicit process of strategically planning children's education in line with their expected futures (in terms of work, marriage and childrearing). Children are nevertheless able to make their own decisions and

(especially for boys) enact them, although they will often do so in response to failure at school or dislike of school.

In addition to these tentative conclusions, there are a number of pressing questions that the existing literature leaves quite open in the context of the urban poor in Bangladesh, including:

- To what extent is information important? Do households systematically lack the information they need to access schools? Or, given that information can be spread freely, are they in general able to get this information through their friends, neighbours and relatives?
- How important is child labour in education decisions? The literature is unclear on this, with some authors finding it widespread while survey evidence suggests it is rare. Is it a causal factor in dropping out of school?
- Is primary education by itself seen as worthwhile? Does it continue to bring labour market or other returns to people living in Dhaka? Or is it valued mainly for the access it gives children to secondary and higher education?
- How are different school types valued, and how do parents evaluate them?
- To what extent are households' decisions conducive to generation-on-generation improvements in the quantity and quality of resources for livelihoods? In other words, do their decisions about education help the next generation to escape poverty?

The following chapter describes the methodology and methods used for the current study. I then proceed to apply the same conceptual framework – modelling households as weighing up costs and benefits in order to make decisions at each stage of a child's education – to my results. I will consider whether they confirm or contradict the key findings from this literature review, and attempt to answer some of the unresolved questions.

Chapter 4. Methodology and methods

4.1. Methodology

This research adopts a pragmatic approach to methodology, as advocated by Morgan (2007). Research questions and practical considerations guide the choice of methods, rather than metaphysics. Both ontological and epistemological considerations are recognized as important, but are not privileged as sources of guidance on how the research should be conducted. Rather than fixating on subjectivity or objectivity, the approach aims for an “intersubjective” approach by which the researcher “has to work back and forth between various frames of reference” and “achieve a sufficient degree of mutual understanding not only with the people who participate in our research but also the colleagues who read and review the products of our research” (Morgan, 2007, pp. 71-2). Ontologically, I take there to be a single real world, and epistemologically, admit that individuals may have their own interpretations of that world; yet these interpretations are of a kind where joint understandings can emerge, and indeed routinely do emerge as part of social life. These joint understandings can include causal explanations of social phenomena, although there can often be several jointly acceptable explanations of the same phenomenon, focusing on different aspects or categorizing the world in different ways.

The aim of the research is to make warranted assertions about the behaviour and choices of people living in the study areas and beyond (Johnson and Onwuegbuzie, 2004). I do not aim for total “generalizability” of my results to other historical and social contexts. Yet I hope that my results will be transferable to some other contexts; whether they are or not is itself an empirical issue. As Morgan (2007) argues, “we need to investigate the factors that affect whether the knowledge we gain can be transferred to other settings” (p. 72). The sample for the study is taken from four slum areas in Dhaka. I will assume that the findings can reasonably be applied to other slum areas in Dhaka, unless there are special characteristics of those slums not found in the four study areas. The types of homogeneity or variation between the four slums will give us some grounds for understanding what precautions might be needed in transferring findings to other slum areas. I also hope to gain enough understanding of processes to be able to say what findings might also apply to other cities in Bangladesh, South Asia, or the world, or at least what it would depend on.

I use a mixture of quantitative and qualitative methods of data collection and analysis, driven by the demands of the research questions and other practical concerns. In particular, quantitative methods are used to describe the sample in terms of household and individual characteristics and educational outcomes, such as entering school, dropping out, and spending money on education, and to identify associations between these characteristics and educational outcomes.

Qualitative methods are used mainly to understand the processes through which these associations might be explained, and also to understand how people who live in slums themselves explain these processes. In asking children and parents how they perceive the education system – what they value about it and how they assess it in terms of those valued aspects – the research reflects the fact that “the actor acts towards his world on the basis of how he sees it and not on the basis of how that world appears to the outside observer” (Blumer, 1972, p. 21, cited in Crossley and Vulliamy, 1997, p. 5). Understanding people’s perspectives is not just a worthwhile end in itself but also necessary for understanding their behaviour.

A particular aspect of this research was that children were included as research participants, both in surveys and in-depth interviews. Children “tend to be portrayed as ‘cultural dupes’ and not as competent to explain and theorise about their own social worlds” (France, 2004, p. 176). With Greene and Hill (2005), I assume to the contrary, that it is possible to learn about children’s experience, and about their understanding of education and the society they live in, from their subjective reports. However this requires methods suited to their “level of understanding, knowledge, interests, and particular location within the social world.” (p. 8).

4.2. Methods

The research proceeded as follows. First, an initial scoping was conducted to gain a better understanding of the context. Second, a two-part quantitative survey was conducted amongst 1599 households in four slum areas in Dhaka. Third, there were two sets of in-depth, loosely structured interviews. Finally, a mapping exercise was conducted to map the availability of schools in each area.

4.2.1. Scoping

The initial scoping involved visiting several non-governmental education projects either located in slums or targeting poor urban children or street children. The aim was to understand the size of these projects, how they worked, and their coordination with the government education system, and also to get some background information on the children they served. I also visited central offices of BRAC and Dhaka Ahsania Mission (see Box 1 and Box 2 in Chapter 3) for an overview of their work in poor urban areas.

4.2.2. Choice of study areas and sampling

I decided to focus on four study areas consisting of slums large enough to have a substantial sample of households within each. These were chosen from a list of slums prepared by the Centre for Urban Studies in Dhaka. The selection of slums purposely aimed for a variety of characteristics. The large and well-known slum Korail was deliberately kept among the

selection; and pragmatic considerations also came into play in choosing the others: they were slums that the research team would be able to find.

Table 4. Study areas

area in which the slum was located	year of establishment	households sampled	children 4-15 in sample	type of land
Cholontika, Pollabi	1979	423	482	‘other’
Korail Bosti, Gulshan	1966	379	396	mixed
Gonuktuli, Lalbag	1963	400	514	private
Begunbari, Tejgaon	1986	397	414	government

For the CREATE survey instrument (see below), a sample of about 400 households was randomly selected from each slum (Table 4 gives exact numbers), giving 1599 households in total, of which 1060 contained children aged 4-15, yielding 1806 children in this age range. (Households with no children were included in the survey, but most of the analysis in this thesis is at the individual child level and so excludes those households). 31% of the households with one or more children contained at least one aged 11-15, giving a sample of 491 households for the add-on survey on school decisions and aspirations (see below).

4.2.3. The CREATE surveys

An important practical consideration shaped the research. It had been arranged that I would be based at BRAC University Institute of Educational Development (BU-IED) while in Bangladesh, and that the research team there would give me the (large amount of) practical help I needed to carry out the research. This included research assistants, translation of questionnaires from English into Bengali, data entry, and translation of answers from Bengali into English.

As part of the Consortium for Research on Educational Access, Transitions and Equity (CREATE), BU-IED had already conducted a large household and school survey in several rural areas. They were willing to do the same survey for a large sample in urban areas, and including my own questionnaire and more in-depth interviews as an add-on. Alternatively they would help me to do my own separate survey and/or set of interviews, with a translator, for a much smaller sample of households; or I could use my own resources to do a separate piece of research. I opted for the first choice, both because it meant I could cover a much larger sample – important for any consideration of school decisions in Bangladesh where there is an unusually large number of school types – and because it meant I could link my research to a broader

project encompassing both slums and rural areas, and allowing comparisons between the two types of study area.

Moreover, the CREATE survey, even if not specifically geared towards understanding household decisions, contained much of the information I was looking for, including school type, enrolment, drop-out, absenteeism, private tuition, household income, and parental education. The CREATE household survey instrument was developed as part of its Community and Schools Study to understand the overall situation with regard to access to basic education within the CREATE zones of exclusion framework (Lewin, 2007a). The Bangladesh version is included as Appendix 6.

Data for the CREATE survey were collected by a team of Bangladeshi research assistants, recruited by BU-IED. Most had previously worked gathering CREATE data in rural areas and so were familiar with the survey. They were trained for two days in BU-IED prior to the survey. I and BU-IED staff accompanied them for the first days of interviewing to iron out any problems with the survey and answer queries.

4.2.4. School decisions and aspirations survey

To supplement the CREATE survey and address more specifically my research questions, I designed a second survey to be administered to households containing at least one 11-15 year old within the CREATE sample. This focused retrospectively on the decisions that had been made concerning enrolment in school and drop-out, and asked both parents and children their views on school, and about their expectations and aspirations with regard to education and the labour market.

This survey also contained additional questions to assess the asset status and dwelling type of urban households. This was partly because the CREATE survey was designed for rural areas and included a food security question as its main indicator of household economic status. It is doubtful whether food security is a good indicator of wealth or income for urban households. A set of asset questions was developed based on existing household surveys such as the DHS, but geared towards urban life, and from which it would be possible to develop an asset index. Given that migration is a key issue for people living in slums, the survey included questions on where parents migrated from (if they were not born in Dhaka), whether they had moved from place to place within Dhaka, and how many friends, relatives and other social connections they had in Dhaka.

The full survey is reproduced in Appendix 7. The data collection for this survey was carried out at the same time as the CREATE survey, by the same team of research assistants.

4.2.5. Interviews

While the surveys were important for gathering information on a large enough scale, they are clearly limited for getting to the detail of how households make decisions, because they do not have much space for parents and children to give their own explanations of how these decisions took place. So I added a series of semi-structured interviews, asking parents and children to explain the context and outcomes of their decisions. A loose structure was chosen to allow interviewers to probe unusual, interesting or seemingly inconsistent answers spontaneously and to allow for the possibility of unforeseen types of response. Interviews were conducted with 34 of the households that had been surveyed. The interviews were conducted by a smaller group of research assistants, all of whom had previously also worked on the surveys. I was present during some of the interviews. Research assistants were asked to select cases that appeared interesting or unusual in their responses to the survey. (For logistical reasons, it was decided to conduct the interviews immediately following the survey, so it was not possible to analyse survey results fully prior to designing the interview instrument or selecting the households for interviews).

The interviews included asking children themselves about their perceptions of school, aspirations and expectations, in greater depth than in the survey. The basic understanding for this part of the research was that children are not necessarily less reliable, or more suggestible, informants than adults (Greene and Hill, 2005). Kellett and Ding (2000) argue that “[c]hildren can and do provide reliable responses if questioned in a manner they can understand and about events that are meaningful to them” (p. 165). This meant that children had to be questioned in a sensitive way and using language they would understand. While they might have provided freer responses in the absence of their parents, this was not possible to arrange, because it could have caused anxiety to both parents and children and because in the slum context it would have been difficult anyway to find a separate space to conduct the interviews. Although not part of the initial design, a second set of interviews was later added. I had become aware of the large number of small slums in Dhaka, often hidden in undeveloped lots between large buildings and often in the middle of quite wealthy areas. (Such small clusters of households appear to make up the majority of Dhaka’s slums; see CUS et al., 2006). I wanted to understand how the situation in these smaller slum areas might differ or be similar to the larger slums that had been chosen for the surveys for reasons of ease of sampling. Towards this end I conducted ten loosely structured interviews in small slums, with a similar focus to those in the larger slums. However I conducted the interviews myself through an interpreter, allowing for better steering of the discussion towards interesting issues that were raised.

The guide used to help structure the interviews where necessary is reproduced as Appendix 5.

4.2.6. School mapping

I realized that an oversight of the original research was that I had not systematically mapped what schools were available and used by children living in each of the four study areas. So in 2009 I returned with a research assistant and we asked knowledgeable informants who were willing to spend the time with us, what schools were used by people in the slums and where they were, producing a sketch map in each case. The informants were typically small shopkeepers, parents and children returning from school; the interview tended to open up group discussion. As an indicative cross-check on the other data sources, we also asked about fees, private tuition, and their impressions of strong and weak points of each school. The results from this mapping are used mainly in section 5.5 to examine school availability in different locations.

4.2.7. Data collection and data entry

The survey was conducted by a team of research assistants. The research assistants entered each slum in a group of around 8 and split into pairs to conduct each household survey. The process was supervised by BU-IED staff, who visited the study areas and also dealt with problems or queries by telephone. While it is not possible to entirely rule out the research assistants 'cheating' (e.g. filling in questionnaires themselves), there was no evidence of this happening, and the processes of supervision (by peers and BU-IED staff) and the fact that these were trusted research assistants who had, in most cases, worked for the institute before, helped to minimize this risk. Training sessions involved carefully going through the survey, allowing the research assistants to raise queries, and where necessary adjusting the survey in response to problems raised. The training, and the close contact maintained between the research assistants, BU-IED staff and myself, are likely to have reduced the risk of errors.

Entry of quantitative data was carried out by the data entry service within BRAC using the software SPSS. I then performed several checks on the quantitative data using the software Stata and Excel: I checked that all categorical answers were within the codes permitted, that answers to different questions were consistent with each other, and that the questionnaire flow had been followed correctly. The CREATE survey contains some redundancy, such as questions that are repeated in more than one place, and wherever possible I used this to check consistency. I also checked for outliers and unlikely seeming results. Problematic data were tabulated and passed to a research assistant who checked the paper surveys, in case errors had arisen during data entry, and where necessary consulted the team of research assistants who had carried out the research, to check if they had coded responses incorrectly and to understand what recoding might be required. This checking process was lengthy, but the prevalence of such errors was not high (under 2% of responses in the questions where errors could be identified, and usually fewer). Clearly problematic responses that could not be rectified by going back to the paper survey, were replaced with 'missing' values.

It is possible that some bias in answers may have been caused by social distance between the research assistants and participants, or by participants' expectations that they might be provided with particular services or benefits depending on their responses (although they were told that this would not be the case). These two potential sources of bias would tend to work in different directions: for instance, respondents might understate their income in the hope of receiving NGO assistance, or overstate their incomes out of pride when talking to a middle-class interviewer. Although it is difficult to rule out bias, neither are there strong reasons for expecting systematic bias in one direction in any of the answers. Wherever possible, in the following chapters I compare the results from this study to those from national surveys and past slum research, to establish their plausibility.

The in-depth interviews were conducted in Bengali by research assistants, though in some cases I was present and could ask additional questions. The research assistants wrote accounts of the interviews that they reported afterwards were verbatim transcriptions of what the interviewees had said, but which in practice may be better seen as detailed notes, and did not, for instance, include the hesitations or self-corrections that are usually part of natural speech. These handwritten notes in Bengali were then translated into English and typed before being analyzed. The data presented here has to be understood in this light; it is possible that meaning may have been lost or added during this process, and the data is not particularly good at representing nuances or doubts in participants' responses. The translator plays a "cultural broking" role, making about what each response means in the cultural and linguistic context of Bangladesh and how that meaning can be reconstructed in English (see Temple and Young, 2004); unfortunately I do not have access to that decision process, only the end results. For the small-slum interviews, I conducted the interviews myself, with an interpreter; the data are my notes from these interviews rather than verbatim quotations.

For the rapid school mapping I accompanied a research assistant, who asked most of the questions and translated, so that I could intervene with more questions where necessary, and who, together with the participants, drew up sketch maps of the slums showing the location of different types of school.

4.2.8. Methods of data analysis

I use tabulation, statistical testing and regression analysis to investigate how decisions for a child to enrol in school at the right age, enrol overage, never enrol, or enrol but later drop out, and decisions about expenditure, the type of school chosen, and concerning private tuition, relate to household income, measures of wealth, geographical area, social position, parents' education, expectations and aspirations, and the availability of different types of school and tuition. Both linear and logistic regression are used. The models explore how a household's

resources (of the kinds described in chapter 2), and its expectations and aspirations, can explain school decision outcomes. The underlying theory includes a causal relationship: having a different resource portfolio, or having different expectations and aspirations, are hypothesized as causing different educational decisions. The regression models are not in themselves fully capable of establishing causation, however; they can only establish conditional correlations that are consistent with a causal effect (or the absence thereof).

In most cases I am not concerned about reverse causation in the regression models used in this research. It is not plausible to suppose that a decision about a child's education could cause a difference in, say, wealth or parents' education – although if the decision leads to the child dropping out of school and working for income, then it could have a (usually relatively small) causal effect on household income. However, missing variables may be more of a concern. It is possible that there are unmeasured confounding variables in some of the regressions – variables with a causal effect on (for example) both wealth and educational decisions, causing a correlation to appear without any causal link. A false negative – where there is a causal relationship, but no correlation is found – could also be due to a missing variable, if the missing variable affects the dependent variable in the opposite direction to the effect of the explanatory variable. The inclusion of a fairly wide range of social and economic variables helps to safeguard against confounding variable problems, but they are impossible to rule out, and so I consider alternative explanations as appropriate in the following chapters. Some unmeasured variables that might be important in this study include a household's precise location (I only have which of the four slum areas it was located in), and the child's innate ability, if that ability is correlated with household or parental characteristics.

Much of the statistical analysis uses wealth indices. Two alternative indices were calculated, using principal components analysis (Filmer and Pritchett, 2001; see Chapter 5 and Appendix 2).

As discussed above, qualitative analysis of the interview data examined the full range of costs and benefits of schooling, and aimed to understand how these are weighed up (and by whom) in making schooling decisions. The analysis uses the framework of household resources for schooling developed in sections 2.1 and 2.2 above; responses in interviews are used to illustrate particular points about what resources households have, how they use these resources for education, what they expect the benefits to be, and what the actual process of making the decision is like. However I also consider ways in which the responses might require extra categories to be added or indeed challenge the whole framework.

4.2.9. Ethics

The research was designed and conducted in a way which would respect ethical principles as embodied in guidelines such as those of the UK Economic and Social Research Council (ESRC, 2010). The key principles are integrity, quality and transparency; informed consent; confidentiality and anonymity; voluntary participation; avoiding harm; and independence of the research.

The purpose and use of the research was explained in simple terms, and verbal informed consent requested, before each interview (whether it was a survey interview or in-depth). Prior to interviewing a child, consent was asked from both the parent and child. Participants were told that they were free to choose whether to participate or not, and could withdraw from the study at any time.

Confidentiality and anonymity take on a particular importance given the illegal tenure of some people living in slums, meaning that identifying them would put them at risk. To avoid any such risk, participants' names were not recorded at all in the quantitative dataset; they were recorded in the qualitative data but not used in reporting. Given confidentiality and the fact that participation was limited to answering survey and interview questions, and the questions were not particularly sensitive, the risk of any harm being done to participants was low.

Participants were not directly compensated for their participation in the survey. It is hoped that by drawing attention to the problems of slums, and to the failures of existing policies such as mass evictions to help urban poor people, the research would be part of larger efforts beneficial towards slum populations.

4.2.10. Limitations of the research design

The design of this study was based on a mixture of theoretical and pragmatic considerations. The CREATE survey designed for use in rural areas was used, with the addition of a tailored survey on the issues of specific interest for this doctorate. If doing this doctorate had been the only objective, then a single, shorter tailor-made survey would have been more appropriate. The long combined length of the two surveys may have reduced the quality of the answers given. There were some flaws in the design and administration of the survey instruments. The original aim had been to ask 11 to 15 year olds about their primary schooling – retrospectively for those who had dropped out or passed to secondary grades. Ultimately, though, the quality of this retrospective survey data is not good and in some cases data is missing, so much of the statistical analysis is based instead on the children *currently* in primary school. There was some incorrect coding of answers, although no evidence of systematic bias of any kind, and the survey sample was large enough to be able to rely on summary statistics even if there is some

degree of random error. These problems could have been avoided with a better paced schedule of piloting and analysis of the pilot survey results, prior to launching the full survey.

There were substantially fewer 13, 14, and 15 year olds in the study than other ages. This probably reflects children leaving home at these ages, in which case they would not have been counted as household members. It would have been better to include questions on children of the household head who did not live in the household. This likely leads to an underestimation of the extent of child labour and an overestimation of the number still in school at this age. The study could have asked more about absent sons and daughters of household heads, allowing us to gain some understanding of migration patterns and how many teenagers work away from their parental home, although this would have extended further what was already a long questionnaire.

In discussing employment, the research could have been more careful to distinguish different categories. In the garments industry, for instance, Kabeer and Mahmud (2004) distinguish at least three different 'tiers', ranging from formal employment in large foreign-owned factories, which typically take on better educated workers from wealthier backgrounds, to the small informal outsourcing companies, with worse working conditions and lower-skilled workers.

Although I will argue that the overall design used in this study, mixing quantitative and qualitative evidence and analysis, was successful, it might have been useful to adjust the sequencing of different forms of data collection. In particular, if there had been time for analysis of the quantitative results prior to carrying out the in-depth interviews, then this would have allowed more specific questioning in the interviews to probe issues that arose from the survey analysis.

There are several aspects of education decisions that are sensitive and so difficult to access with this kind of study. This includes physical violence and verbal abuse in schools, especially where children's failure to work hard enough or to behave well are seen as having incurred a beating from the teacher; the child would likely be ashamed of his or her behaviour as well as reluctant to discuss the punishment. The large role of *mastaans* in slums, plainly evident in previous research (Baker, 2007; Rashid, 2007b; Rashid and Hossain, 2005), was rarely mentioned by the respondents here. However this may partly have been due to the military-backed interim government that was in power at the time, which according to at least one respondent had cracked down on the politically-linked gangs that used to operate in the slums. Disputes within the household were not brought to the fore; children claimed to be obedient to their parents and wives to their husbands, but there were several cases where this order of command had not pertained in determining children's schooling. It would not have been appropriate to push such sensitive issues harder without a research design that could have assured participants of total

anonymity and confidentiality, and avoided exacerbating household conflicts or bringing shame on the family. Even the practical hurdle of finding a safe space to conduct the interview where answers could not be overheard by neighbours and family members, would have been difficult to overcome. These things are not impossible, but difficult to achieve in a large-scale survey in a slum.

The results given here – both in the survey responses and in-depth interviews – have to be seen not as objective accounts, but as a performance within a social context, the rather unusual one of giving an interview to an unknown person from a wealthier social background and from outside of the slum. Ball (2003) notes that in giving accounts of education decisions, people also tend to render “morally adequate versions of their life choices” (p. 56, citing Jordan, Redley and James, 1994), through which “... they describe and legitimate certain sorts of behaviour at the same time. They are a form of identity work.” (p. 56). In the following chapters I try to keep in mind this aspect of the data. For quantitative analysis, this mainly means considering sources of potential bias in one direction or another (as opposed to random ‘errors’ that would tend to cancel out over a large number of responses). For qualitative analysis it means considering responses as the product both of underlying beliefs that may be more or less long-standing and coherent, and of the social context in which the interviews took place.

4.2.11. Presentation of results

I present the results from the fieldwork in the following four chapters. Chapter 5 examines what resources households had access to, using the resources framework presented in Chapter 2, and a combination of cross-tabulation of descriptive statistics and quotations from interviews.

Where appropriate t-tests and analysis of variance (ANOVA) tests are used to check for statistically significant differences between categories. It also describes the derivation of wealth indices using principal components analysis. Chapter 6 discusses how households use these resources for education, again drawing on the conceptual framework in Chapter 2, which distinguished three ways that getting education may involve using resources: covering the costs of education, managing the relationship with the school, and supporting the child’s learning.

Again, the results presented are a mixture of qualitative results and descriptive statistics, although I also conduct regression analysis to investigate how different types of school expenditure vary with school type and grade. Chapter 7 looks at the expected benefits of education, drawing mainly on the qualitative results and sections of the survey that asked parents and children what they hoped, and what they realistically expected, the child would do when he or she is older.

Chapter 8 asks how a household’s endowment of resources (Chapter 5), the ‘costs’ it faces for different types of school (Chapter 6) and expected benefits (Chapter 7) come together to

influence education decisions. It distinguishes a series of points over time in which decisions may be made, and examines each in turn: the decisions to enrol at the correct age, late, or not at all; the decision to drop out; choice of school type; and expenditure. It also examines the composite outcome of all these decisions, as represented by the child's grade attainment, controlling for age. This chapter uses a combination of descriptive results, regression, and presentation of qualitative results, in order to try and get a rounded view of how each type of decision is made. In particular, the quantitative results mainly show how decision outcomes vary with the economic and social resources of the household. They do not tell us how this decision point was experienced by the individuals involved, not even if they experienced it as a decision or in which they were able to exercise any agency, or simply as an outcome shaped by factors outside of their control or influence. The qualitative results provide some insight, via the narratives of parents and children, about these subjective experiences of educational decisions.

Bryman (2006) notes that many authors highlight the fact that they are using qualitative and quantitative data but tend to give much more attention to one than the other, and to present the findings in parallel so that there is little or no integration. Bryman (2007) suggests that, at the most obvious level, this lack of integration may mean that research is not making the most use of the data that has been collected; separate presentation may make it harder for the two sets of findings to illuminate each other. Bryman advocates a view of mixed methods research that is about "forging an overall or negotiated account of the findings that brings together both components of the conversation or debate" (2007, p. 21).

As Bryman also notes, however, achieving genuine integration of quantitative and qualitative results in practice can be challenging and there is a lack of established templates for doing so. In chapter 8 I attempt such an integration, relating descriptive statistics, regression results, and qualitative findings together under thematic headings based on decision points. This poses some difficulties, for instance, in shifting between different language conventions for discussing different types of data, and in maintaining a consistent narrative. Despite these difficulties, I integrate the results with the aim of providing a single integrated account. Rather than writing one chapter that privileges decontextualized statistical analysis and another that privileges the voices of participants, I try to convey both sides of the story at the same time, to arrive at a joint understanding in line with the "intersubjective" methodological approach I have adopted (Morgan, 2007; see section 4.1 above).

Chapter 5. What resources do slum households have?

As set out in Chapter 2, households are likely to draw on several types of resource in order to access education: wealth and productive capital; environmental resources; labour of household members; information; and recognized rights. They may access any of these directly or through social networks. In this chapter I apply this framework to the study sites, asking to what extent households possess these various resources. This will act as a background for Chapter 6, which will consider how they use these resources to access education. Where appropriate, to help put these results in context, I compare results to the rural areas studied for CREATE (see Hossain et al., 2009) as well as to the evidence from the literature review in Chapter 3.

5.1. Wealth and productive capital

As I argued in Chapters 2 and 3, wealth is important for people living in slums even if they have relatively little of it. In the present study some of the worst off households were in debt, or had originally come to the city to escape debts due to failure of farms or small businesses in rural areas. On the other hand some owned their own dwellings and had relatively substantial assets.

Looking first at dwelling ownership, most respondents rented their homes. There was some confusion in the survey as many said they owned their dwellings yet also stated an amount of rent, reflecting unclear legal status and payment of rents to different agents even where people consider themselves the owners of their homes. 12% said they owned their dwellings, while 14% said they either paid no rent or a nominal amount of rent (which I define as rent below 5% of income; see Table 5). This gives a rough indication of the proportion who could sell their home as an asset in case they needed money. Some families had built their own homes; for instance one in Lalbag had moved there from a nicer area just so that they could build their own house. Other families had been forced to move because their previous residence was destroyed; in some cases they were priced out when their houses were replaced with larger buildings run by landlords.

Some families still had links with property in rural areas, although in several cases the move to Dhaka was prompted by the loss of a home and farm due to river erosion or being ousted from property by relatives. In a few cases respondents hoped to move back to the village as soon as they could save enough to buy land there, or in case their old property re-emerged when the river shifted course.

Table 5. Dwelling ownership and rent

	Cholontika	Korail	Lalbag	Begunbari	Overall
Proportion who pay rent	86%	86%	92%	95%	90%
Average rent (for those who pay) (Tk. per month)	819	855	976	1164	963
(as % of income)	16%	17%	15%	19%	17%
Proportion who pay no rent or rent is < 5% of income	18%	20%	12%	8%	14%

Households were asked about ownership of a number of assets that would help in economic production. Very few owned a bicycle (10%), a cycle rickshaw (2%) or any type of motorcycle or scooter (only two households). However much larger numbers owned televisions (46%) or a mobile phone (43%). These findings are similar to those of previous studies such as Benson (2007) and M.S. Hossain (2006a), which find quite low levels of ownership of assets that would directly aid production, but fairly high levels of other household assets, but typically with a low total value. Households' assets do not provide them with much cushion against sudden drops in income such as those due to illness, especially given that few have effective ownership of their houses.

I created two wealth indices for use in subsequent analysis, one based on the CREATE survey only (which had a larger sample but fewer indicators), the other based on the CREATE plus add-on survey (smaller sample but more indicators). Full results are given in Appendix 2.

The first asset index (henceforth AI1), calculated using the full sample, is relatively weak for distinguishing amongst the poorest, as Figure 7 shows. AI1 does not allow us to distinguish among the poorest households and groups nearly all of the bottom 40% in the first (poorest) "quintile", only placing a few households in the second. The second asset index does much better (Figure 8), allowing roughly equal numbers of households to be placed in each quintile. In the following chapters, where wealth is used as an independent variable in regression analysis or cross-tabulations, I mainly use AI1 in order to take advantage of the larger sample size, but check results using the more sensitive AI2.

Both indices suggest a concentration of the wealthiest residents in the Lalbag study area and of the poorest in the Cholontika and Korail study areas, with Begunbari falling between the two extremes.

Table 6. Examples of some of the wealth indicators, by study area

<i>Household...</i>	Cholontika	Korail	Lalbag	Begunbari	Overall	<i>Overall (rural)</i>
Owens a desk	8%	11%	21%	7%	12%	53%
Has electricity	92%	82%	91%	97%	91%	36%
Poor ventilation	36%	22%	12%	19%	22%	17%
Has a radio	8%	11%	12%	6%	9%	18%
Has a television	30%	29%	84%	41%	46%	19%
Has a mobile phone	30%	27%	65%	51%	43%	24%
Has a watch *	62%	64%	91%	67%	73%	
Everyone in household has shoes *	89%	90%	97%	90%	92%	
Cracks in walls *	36%	20%	1%	5%	14%	
Asset index 1 (AI1) (based on indicators available for full sample)	-0.46	-0.36	1.03	-0.20	0.00	
Asset index 2 (AI2) (based on indicators available for sub- sample)	-1.62	-1.60	2.14	0.01	0.00	

Note. * indicates variables were only available for the sub-sample

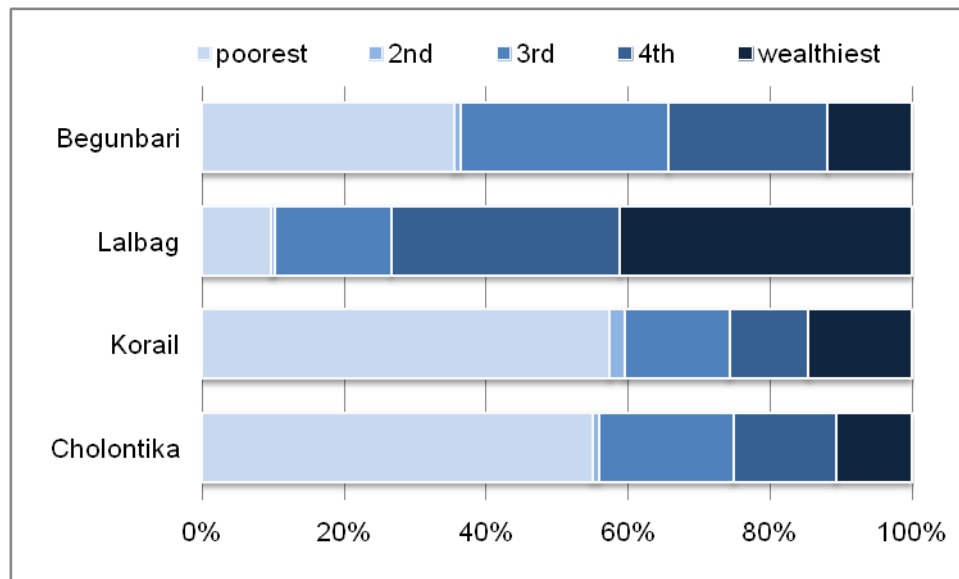
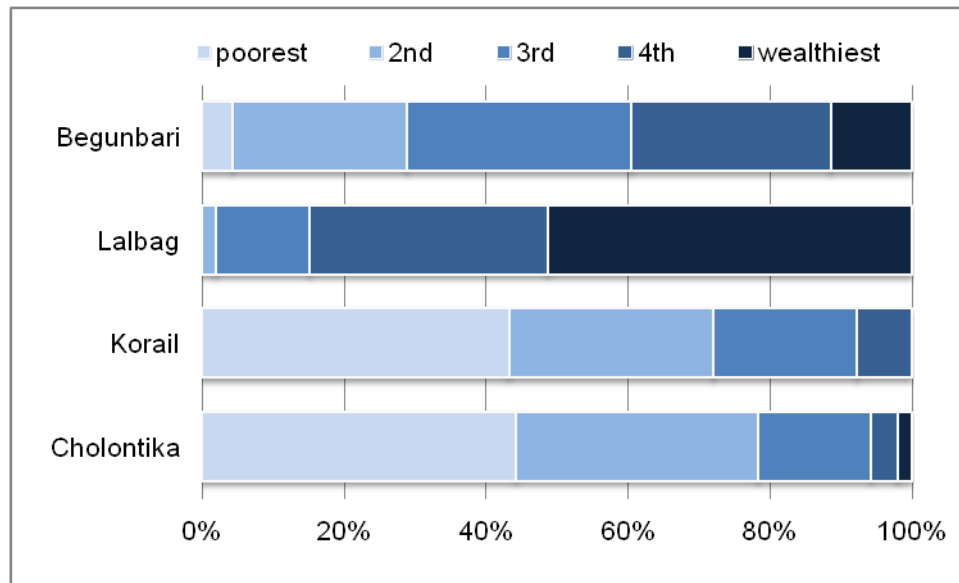
Figure 7. Proportion of households in each wealth quintile, by slum, using wealth index AI1

Figure 8. Proportion of households in each wealth quintile, by slum, using wealth index AI2



5.2. Labour of household members

Labour is often the most important resource for poor households. For education decisions, it is likely to be important in several respects: in determining whether the household has a secure and sufficient income to meet the costs of education; in setting the opportunity cost of a child's time spent in school; and in terms of what work opportunities are likely to be available for a child when he or she leaves education.

Overall, households' ability to secure an adequate income with their labour was very limited. Between 76 and 88% of the households in each slum had less than US\$1 per day per member to live on (Table 7). This proportion was lower than in the CREATE rural study areas (90%), and on average the urban households earned 30% more than those from the rural study areas. But in absolute terms they were still extremely poor, with incomes equivalent to just US\$0.75 per person per day at official exchange rates, or around US\$2 in terms of purchasing power. However, costs of living are much higher in Dhaka, and in interviews participants stressed how their budgets were strained by endless rises in prices of daily goods, as well as high rents, especially in Begunbari. They had to work quite long hours to balance their budgets, as well as coping with the demands on their time from the endless queuing and waiting that was part of living in a slum (see section 3.3.4 above).

Table 7. Poverty and food security

	Cholontika	Korail	Lalbag	Begunbari	overall	rural CREATE
below US\$1 a day per member	88%	87%	79%	76%	83%	90%
% staple food security status is 'always in need'	13%	9%	14%	10%	11%	15%

In what follows I examine first, the composition of households in the study areas, which is obviously a major factor in determining the value of its labour; secondly, I consider their human capital through disability, health, and educational levels; and third, I look at what occupations adults in the study areas have entered into. I save the discussion of child labour for the next chapter.

5.2.1. Household composition

The potential value of labour in a household depends firstly on how many people are in it. Table 8 and Table 9 show household size, female-headed households, the number of children and adults, proportion of females, and age of members, broken down by study area and per-capita income quintile.

A typical household in the study contained 2 or 3 adults and 1 or 2 children. The average slum household was substantially smaller than households in the CREATE rural study areas. This may mean households with the same amount of total resources are in a slightly better position in urban than rural areas; a household with fewer children has more resources per child for education (see section 2.4.3). But there was considerable variation. Larger households typically had less income per household member; they had more children and old people, who either do not work or work but for low wages. They were also on average younger, and may have contained young adults not yet at the peak of their earning potential. On average, adding one person of working age (16-64) to the household added around Tk. 1000 to its total monthly income.

A substantial minority of households were female-headed, mainly in Lalbag and Cholontika. There was no significant relationship between a household being female-headed and being richer or poorer in wealth or income. This could reflect a divide similar to that noted by Joshi (2004), between households where husbands have migrated for work, which tend to have higher incomes as a result, and those where the husbands have died or deserted the family, which tend to have lower incomes. Unfortunately it is not possible to distinguish the two types of female-headed household using this dataset.

Table 8. Demographic variables by study area

	Cholontika	Korail	Lalbag	Begunbari		overall	rural CREATE
Household size	4.3	4.3	5.0	4.0	**	4.4	4.8
Female-headed	15%	9%	18%	5%	**	11%	8%
Children (0-15) per household	1.6	1.5	1.7	1.5	n.s.	1.6	1.9
Adults (16+) per household	2.7	2.7	3.3	2.5	**	2.8	3.0
Child dependency ratio	0.34	0.33	0.33	0.33	n.s.	0.33	
Proportion of females per household	51%	50%	50%	49%	n.s.	50%	51%
Mean age	22.5	22.5	24.5	21.3	**	22.8	
Mean age of household head	37.7	37.2	43.1	35.2	**	38.3	

*Note: table shows significance of analysis of variance (ANOVA) tests for differences between the study areas; ** $p < 0.01$; n.s. not significant ($p \geq 0.05$)*

Table 9. Demographic variables by household per capita income quintile

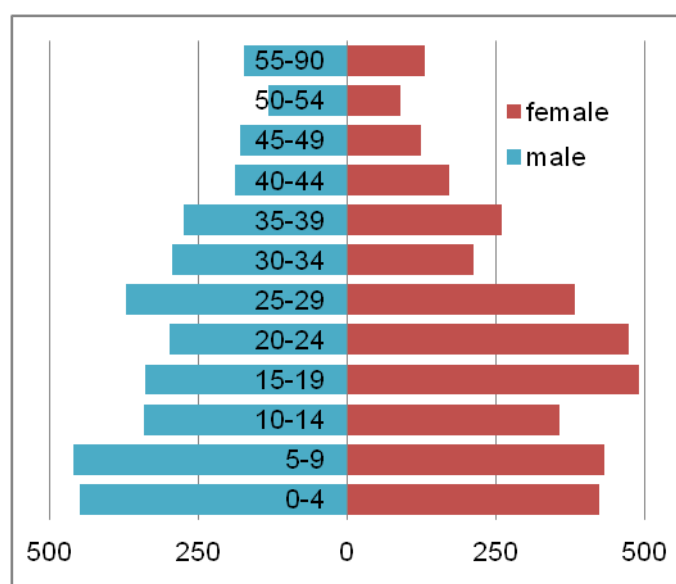
	poorest	2	3	4	richest	
Size of household	5.4	4.8	4.2	3.9	3.5	**
Female-headed household	14%	12%	11%	10%	12%	n.s.
Number of children (0-15) per household	2.3	1.9	1.4	1.2	0.9	**
Number of adults (16+) per household	3.1	2.9	2.7	2.7	2.6	**
Child dependency ratio	0.42	0.38	0.33	0.30	0.21	**
Proportion of females per household	49%	48%	51%	50%	50%	n.s.
Mean age by household	21.8	22.5	23.1	23.0	24.8	**
Mean age of household head	40.1	39.2	38.1	36.9	36.4	**

*Note: table shows significance of analysis of variance (ANOVA) tests for differences between the income quintiles; ** $p < 0.01$; n.s. not significant ($p \geq 0.05$)*

There were large numbers of young people in the study areas (Figure 9) and, although overall the sample was equally split between males and females, in the 15-24 age group there were more females than males. This could represent young men leaving the household to study, to work elsewhere in the city (staying, for instance, in mess accommodation) or in other countries; or alternatively young men staying behind in rural areas to continue doing agricultural work

while the rest of the family moves to the city, where there are work opportunities for young women.

Figure 9. Age profile of the sample



Many adults in the households had little education themselves. Overall 42% reported that they were able to read and write (Table 10).

Table 10. Adult literacy by study area

	Cholontika	Korail	Lalbag	Begunbari	overall	rural
Adult (16+) literacy	33%	36%	50%	48%	42%	50%
– male	36%	40%	58%	51%	47%	54%
– female	30%	33%	42%	45%	37%	46%

5.2.2. Health and disability

89% of the children in the sample were fully vaccinated, with small variations between slums (Table 11). A third were not in good health and a quarter had been sick in the last 30 days. Only 1.2% were reported to be disabled. Internationally, the World Health Organization estimates that 15.6% of adults (and more in low-income countries) have significant functioning difficulties in their everyday lives, while 2.2% have “very significant difficulties” (World Health Organization, 2011, p. 27). This suggests severe under-reporting of disability in the present study. In general the health and disability status of children in the slums appears slightly better than that of children in the CREATE rural areas.

As a measure of early childhood health and nutrition, I compute the number of standard deviations by which the child's height differs from the median height for his or her age and sex. (This relates to the WHO definition of stunting; see World Health Organization, n.d.). Children were substantially taller in Lalbag, and smaller in Begunbari, compared to the other two study areas.

Table 11. Health and disability of 4-15 year-olds, by study area

	Cholontika	Korail	Lalbag	Begunbari	Overall	CREATE rural
Fully vaccinated	88%	87%	92%	90%	89%	87%
'Good' or 'very good' health	60%	58%	70%	74%	66%	61%
Sick in last 30 days	29%	28%	19%	29%	26%	28%
Disabled	0.6%	1.8%	1.0%	1.5%	1.2%	1.6%
Height for age deviation	-.12	+.05	+.18	-.23	-.02	

Note. Height for age deviation is the number of standard deviations by which a child's height differs from median height for age and sex; a positive number means the child is above median height.

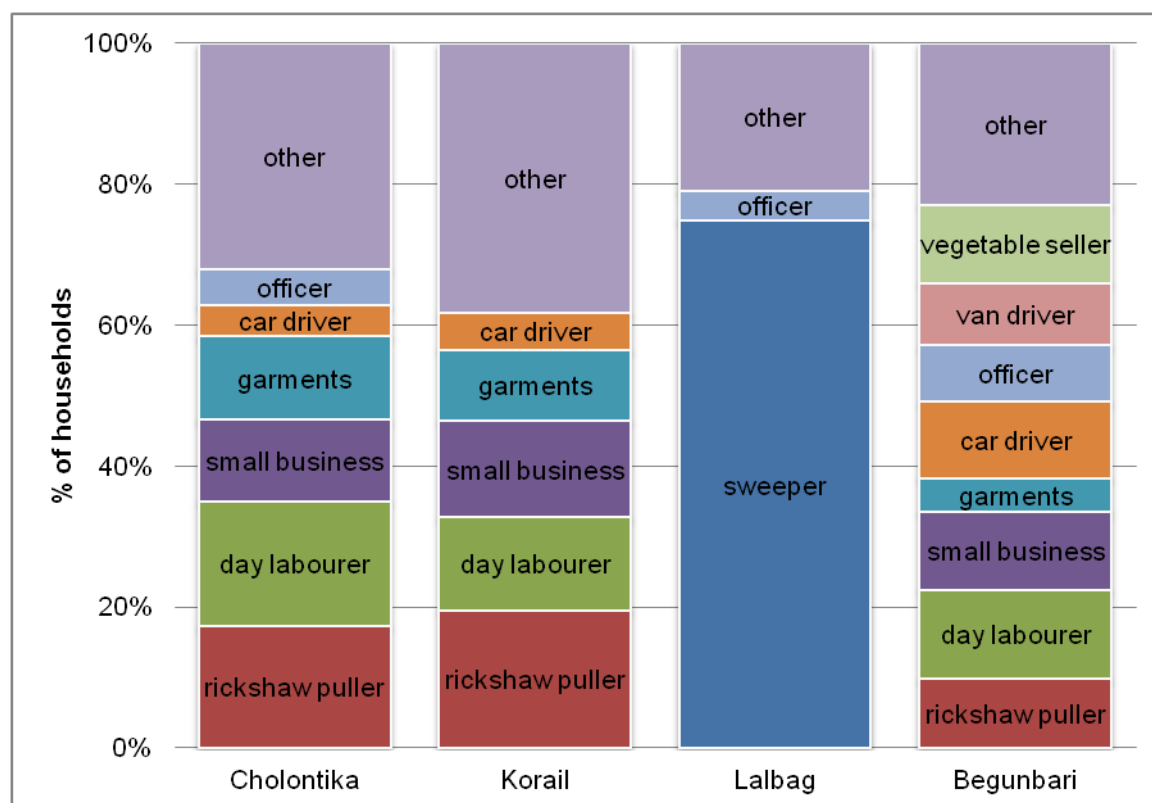
Given the large variation in children's health, it is worth a brief exploration of underlying factors. Unsurprisingly, children who had completed a course of vaccinations were more likely to be in good health than those who had not, and children from poorer families were both much less likely to have been immunized and to be in good health (Table 12). Only half of children from the poorest wealth quintile were in good or very good health. There were no significant differences by sex. Mothers with primary education were more likely to have had their children fully vaccinated, and more likely to have children in good health. Height for age did not differ significantly by whether the child had been vaccinated or not, or by mother's education, but is significantly higher among the richer wealth quintiles than the poorer ones.

Table 12. Child health and vaccination

	Fully vaccinated (%)	Child in good or very good health (%)	Height for age deviation
Fully vaccinated		67.5	-.03
Not fully vaccinated		52.6	+.07
Average	88.8	65.9	-.02
Boy	90.0	64.5	+.01
Girl	88.8	67.3	-.05
Poorest wealth quintile (AI2)	81.8	50.5	-.12
Richest wealth quintile (AI2)	93.5	74.6	+.21
Mother with less than primary	88.2	63.1	-.03
Mother with primary or higher	94.6	76.7	+.03

5.2.3. Occupations and incomes

The types of work undertaken varied systematically between the four study areas (Figure 10). The slum in Lalbag was dominated by sweepers. In Cholontika and Korail, rickshaw pullers, day labourers, garments work and small businesses, accounted for nearly 60% of occupations. In Begunbari work was more diversified.

Figure 10. Occupations of household head, by study area

To simplify the occupational data I reduce the occupations to eight categories (plus ‘housewife’ and ‘other’; see Appendix 3). Although individual earnings information is not available, total household income gives us some indication of what can be earned in different occupations (Table 13). The highest earners include office employees in businesses.

Surprisingly, however, families with household heads working as sweepers are also among the highest-earning in the sample. Although it is dangerous, stigmatized, difficult and dirty work, sweepers (who nearly all lived in the Lalbag study area) do benefit from stable government employment which can also be passed down from one generation to the next. From interviews, these households also often appeared to have other members working in garment factories or who had migrated abroad for work, although I was not able to measure the extent of this statistically.

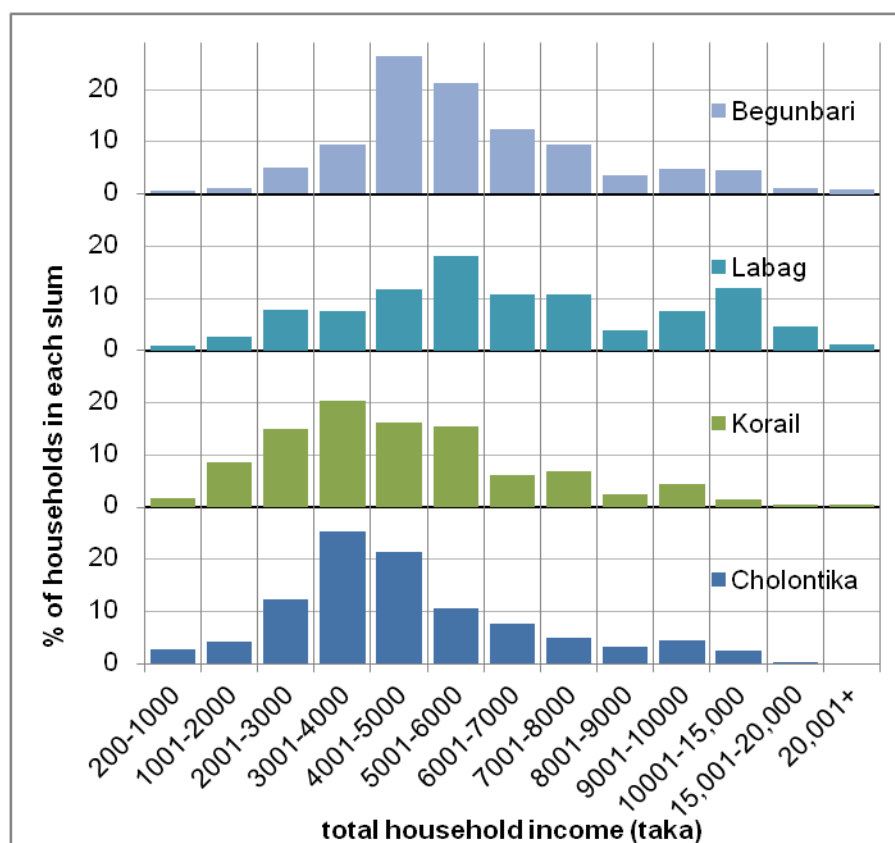
Domestic workers, rickshaw pullers, low-status employees (such as waiters and guards), and factory workers were among the lowest earners. The situation just described in Lalbag, and the relatively high proportion of higher status employees in the Begunbari study area, were reflected in higher overall, and per capita, incomes in those two areas (Table 14). Figure 11 shows the full distribution of total household income in each slum. In each case there is significant group earning well above the median, but this was particularly marked in Lalbag, with a sizeable minority earning Tk. 10,000 or more and a separate, larger group with median income around Tk. 5-6000.

Table 13. Income by occupation of household head

occupation category of household head	% of sample	total household monthly income (Taka)
domestic worker	1.8	4179
rickshaw puller	11.7	4800
factory work	8.4	5043
day labour / similar	16.5	5152
self-employed	12.9	6510
sweeper	18.9	7534
Low-status employee	2.1	5056
High status employee	16.9	7067

Table 14. Incomes by study area

	Cholontika	Korail	Lalbag	Begunbari	overall	CREATE rural
household monthly income (Taka)	5105	5278	7760	6605	6179	5326
per capita monthly income (Taka)	1312	1400	1655	1831	1547	1199

Figure 11. Distribution of income by study area

5.3. Information

Do households have the information they need to make education decisions? Most respondents said there were sources of information they could draw on. Asked where they would look for information about schools, most said they thought they could get this by going to a government school. Smaller numbers said they could go to a private school, NGO offices, or from an NGO community or social worker (Table 15).

Table 15. Where do you think you could find information about schools/education in this area?

(%)	Cholontika	Korail	Lalbag	Begunbari	total
NGO offices	23.9	11.4	1.9	8.7	10.6
government school	39.8	62.9	63.3	79.1	61.5
private school	35.4	1.9	12.7	9.6	14.9
NGO community / social workers	4.4	9.5	3.8	0.9	4.5
newspapers / books	0.0	0.0	0.0	0.9	0.2
other sources	19.5	15.2	17.1	1.7	13.6

Note. Multiple answers were allowed.

But although parents might have seen information as being available in schools, it was not clear that they regularly used this source of information. Even among parents of children who had been to school at some point, nearly half had not been to the school during the past 12 months and nearly half had not talked with a teacher during the same period (Table 16). And in few cases had teachers, government officers or NGO workers come to the household. In the Begunbari slum there were hardly any cases of such visits. This type of interaction varied strongly by wealth. Among the poorest asset quintile, less than half had spoken with a teacher, while two-thirds of the richest had. NGO workers were much more likely to have visited the richer than the poorer households, although this largely reflects the difference between the richer Lalbag study area and the others.

Table 16. Parents' interaction with school, government and NGOs

<i>During the past 12 months... (%)</i>	Cholontika	Korail	Lalbag	Begunbari	total
attended teacher-parent meeting	25.1	14.5	32.7	39.2	28.3
talked with teacher	39.3	52.4	56.4	64.6	52.4
went to school for any purpose	49.3	44.8	64.0	43.8	52.8
teacher visited house	14.1	13.3	14.9	0.8	11.9
government officer visited house	0.9	3.1	0.4	0.0	0.8
NGO worker visited house	1.5	7.0	30.3	0.0	12.8

Note. Only parents of children who had ever been to school were asked these questions.

Many also had access to the technologies that would help them to access information. As recorded above, 46% of households had televisions. Smaller numbers took a newspaper (2%) or owned a radio (9%). 43% had mobile phones, which would extend their access to information circulating via networks of friends and relatives. To this should be added larger numbers who

could use mobile phones by borrowing them, or televisions at neighbours' houses or in tea-shops.

Harder to ascertain is whether the information they were able to access included information about specific schools, and about education in general, that would help them in judging the quality of the different schools on offer. In interviews, parents tended to resort to rather vague principles for distinguishing good and bad schools:

Of course there are differences between good schools. If there are good teachers, the school will be good. On the other hand, bad schools have bad teachers.

– *Lalbag*

Good schools have more fees, better uniform, better teachers, school car, and many other differences.

– *Cholontika*

This may, however, reflect difficulty in articulating their understanding of school quality, or perhaps a feeling that the differences between schools were too obvious to describe, rather than a lack of any such understanding.

5.4. Environment

The slum environment was generally, a challenging one in which to live, work and go to school. The study areas were all overcrowded, with poor quality housing and narrow dirt roads. Aside from the slum in Lalbag, all three were in some way cut off from the surrounding areas, whether by water or by busy roads.

Box 5. The slum environment

Cholontika. Large slum established in 1979 in what was then an outlying suburb of Dhaka. This was the study area with the worst housing conditions.

Korail. Huge and long-established slum on a peninsula formed by a lake and surrounded by the wealthy Gulshan area. Most prone to flooding.

Lalbag. A colony in Old Dhaka built in colonial times to accommodate lower caste Hindu sweepers (street cleaners) from India. Some live in a good quality three-storey concrete apartment, but most in slum housing.

Begunbari. A set of three-storey constructions made from corrugated iron and bamboo, with thirty to forty families staying in single, mostly windowless, rooms in each building. Each building had 8 to 10 ovens and only one toilet. The slum is in the middle of a major industrial area and surrounded by large and busy roads.

Most households in the study areas had electricity, although a sizeable minority (9%) did not, many of them in Korail. Cholontika residents seemed to suffer from the worst ventilation, and Lalbag the best. More than half of the houses surveyed flooded at least occasionally. Korail was particularly flood-prone: 90% said their dwellings got flooded during the rainy season and 98% said the streets surrounding their dwellings got flooded.

Households used shared water sources and toilets, sometimes having to queue for a long time to collect water each day. In Lalbag collecting water took more than one hour a day on average. Many of the dwellings in Cholontika and Korail did not have a secure door, leaving them vulnerable to break-ins, but this problem did not affect the households in Lalbag and Begunbari.

Table 17. Environmental problems by study area

	Cholontika	Korail	Lalbag	Begunbari	Total
Poor ventilation in study rooms* (%)	36	22	12	19	22
Electricity (%)	92	82	91	97	91
Dwelling floods sometimes or often (%)	49	90	35	58	55
Streets flood sometimes or often (%)	60	98	76	88	80
Time spent collecting water (mins per day)	25	27	62	13	37
Dwelling has insecure door (%)	61	30	1	3	22

* The ventilation question was only answered in households that had school-going children.

Major problems mentioned repeatedly in interviews included the scarcity of clean water and queues for the water supply. There was no gas connection so households had to cook with wood stoves, sometimes inside their homes, which increases the risk of many health problems such as lung cancer and pneumonia (Burki, 2011). Houses became uncomfortably hot because of their tin roofs, and there were frequent power cuts.

Security was a common problem. One household head who owned a small shop reported that extortion of money by gangsters had been a problem in the past, although this was apparently less of a problem since the military caretaker government had taken charge. Theft was common and parents worried about their children's safety and, for daughters, their honour:

The biggest problem is that, when my daughters go to their work, they have to face teasing of some spoilt boys.

—father, Korail

Various types of people live in the slum, so children have to be restricted.

—father, Korail

The result of the combined deprivations of the slum environment was that residents' lives were ruled by queuing and waiting. Several people said that cooking took 2-3 hours a day, bathing and going to the toilet around 1-1½ hours. In Korail most people spent more time waiting for the boat that would take them across the lake. Getting to the market was for some households not easy. There were further queues for rice in army-run discount shops that had opened in response to rapidly increasing food prices.

5.5. Recognized rights and school availability

The question of what rights households have and to what extent they are recognized by those who hold power in the area, is clearly a broad and complex one that will be touched on throughout this thesis. For the purposes in this section of setting out briefly what resources households have access to, I focus on only one aspect: the extent to which schools of different types are available locally. As seen above (Chapter 3), there seem to be an insufficient number of government schools (GPS and RNGPS) to serve the estimated population of Dhaka, and as I argue in Chapter 2, this represents a failure of relevant actors (such as local and national government) to recognize and enact rights that are legally accorded to people.

The results of the school mapping exercise are listed in Box 6. There were one or two RNGPS and – except in Cholonika – one government primary school within reach of each slum, not a huge number given the high population density of these areas. A variety of NGOs were also catering to three of the slums, but were totally absent in the Begunbari study area. While in Lalbag 30% of households¹⁸ said an NGO worker had visited them in the past 12 months, in Cholonika and Korail only a few households and in Begunbari no households at all said this was the case.

Thus the mapping exercise gives some backing to the common concern that there are areas where multiple NGOs overlap and others that are badly underserved (World Bank, 2006). While NGOs may be putting large amounts of effort into meeting children's rights to education, they may not be doing so in a coordinated way, and are also constrained by practical limits on where education centres can be placed, such as insecure tenure in slums.

The research did not look in detail at individual schools. However Box 7 gives profiles of three schools where there was more information. In the one case (Lalbag) where a slum did have a government school within it, it was well-used by a broad cross-section of the people living there. It was not seen as the best school in the area but was nevertheless appreciated and parents expressed positive attitudes towards the teachers. In the Korail study area, both NGOs and

¹⁸ Only households with at least one child who had ever been to school were asked this question.

private schools had stepped in to fill the gap left by the absence of government schools within the slum, because many parents were unwilling to have their children travel outside it.

Box 6. School availability by study area

Cholontika. Three NGOs operate within the slum operating several classrooms – Catalyst, Surovi and BRAC. Outside of the slum there are two private primary schools, one government and two private secondary schools, and one RNGPS attached to a private secondary school.

Korail. Within the slum there are at least three NGOs, two of which are quite large. One NGO, Intervida, operates two primary schools (total around 500 students) following the government curriculum, and a ‘working children’s school’ with no set grade system. There are two kindergartens, one of which is a single classroom and the other has three classes; and several private madrasas. Near the slum there are two RNGPS, a private primary school attached to a secondary school; a GPS; and three other private primary schools.

Lalbag. Within the slum there is a GPS with around 500 children, and on one corner is a large NGO school operating grades 1-8 compressed into 4 years. The latter has around 900 children enrolled in three shifts of three hours each, and offers a mixture of ‘academic’ and ‘vocational and technical’ education in the upper grades. Near the slum were three kindergartens, a government secondary school, an RNGPS. These were all within around one kilometre of the slum, but did involve crossing a busy main road to reach them.

Begunbari. There are no schools within the slum area. Around 500 metres away is an RNGPS; within one kilometre there are also a GPS and secondary school, and a second RNGPS. There is also at least one private non-formal madrasa in the area.

Box 7. Profiles of three schools

Government school in Lalbag. The slum in Lalbag, which had been established for much longer than the other slums, was unique in having a large government school with around 500 students, within its boundaries. Residents reported that it was good but not the best school in the area, was small for the number of children, and had no playground. Children reported that teachers had a good attitude and treated all of the students equally. 62% of the children attending primary school were in the government school, and the distribution of income groups within the government school was similar to that for the slum as a whole.

NGO school in Korail. Intervida, an international NGO, runs two ‘pathshalas’ or formal primary schools, and one ‘working children’s school’ in Korail, catering to a total of nearly 600 children. They are fee-free, and provide books, materials and school uniforms. The pathshalas follow the government primary curriculum. The working children’s schools follow a non-formal curriculum devised by Intervida but connected to the national curriculum, and try to accommodate the children’s working hours. Upon completing the curriculum, some children move from the working children’s school into the formal system. A few make the transition from the pathshalas to government secondary school, but this depends on winning a government scholarship¹⁹. The school was highly rated by children and parents in informal group interviews, though it was mentioned that children who went there also took private tuition and that it was not able to admit all of the students who wanted to go there.

Kindergarten in Korail. Unlike any of the other study areas, there were two small kindergartens in Korail. The larger was a hut divided into three sections, with perhaps 20 students in each, while the smaller was a single room with space for about 30. Only a few of our sampled students (6% of those in primary school) were attending kindergartens (including these two and possibly others outside the slum). The larger school’s three divisions were supposed to offer one grade of pre-school and the first two grades of primary education. Children as old as 10 attended. Fees were said to be around Tk. 500 for registration, Tk. 150 per month for tuition, and Tk. 100-200 for examinations. These would represent around 2-3% of an average household’s yearly income. The teachers, who were university graduates but not trained as teachers, said that their salaries were Tk. 1,000 per month.

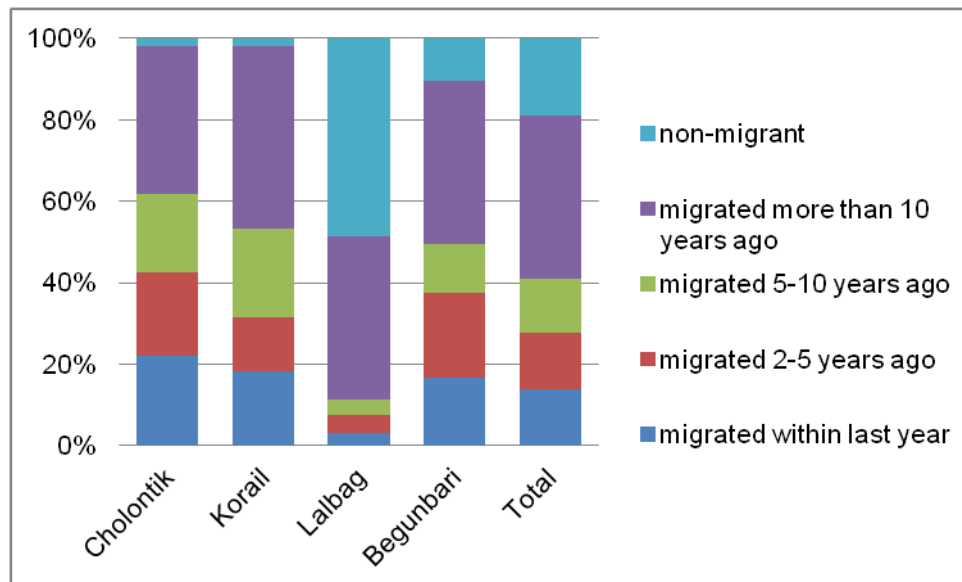
5.6. Socially mediated resources

Internationally and in Bangladesh, evidence suggests that though social networks may be an important resource for poor people, social relations are also fragile and the benefits limited when the network mainly contains others who are equally poor.

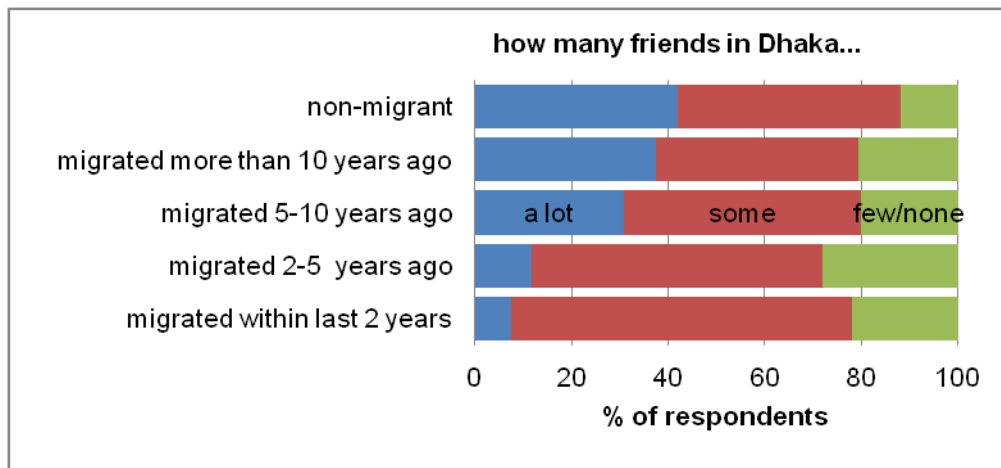
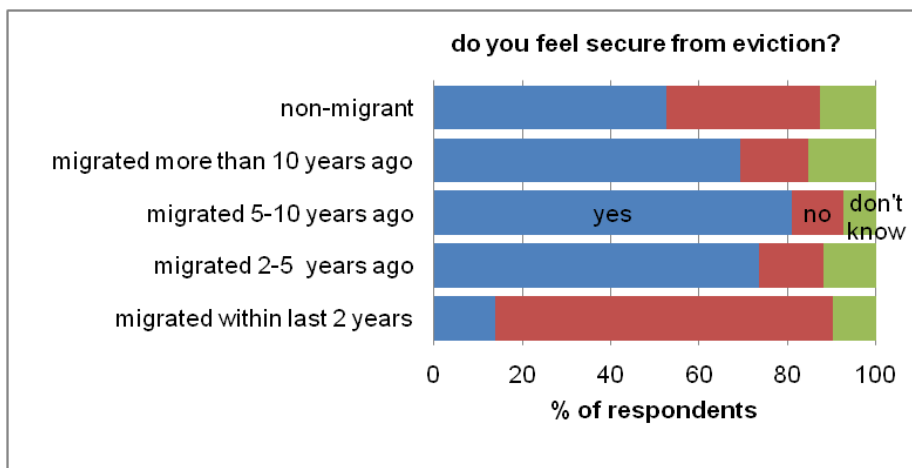
¹⁹ Information from personal communication with Intervida.

People who have recently migrated from rural to urban areas may have particularly strained social networks, potentially having lost connections in the process of migrating. Some caution is needed here, however, in assuming that slum dwellers are all migrants. In the present study, some 20% of primary caregivers were not migrants, and a further 40% had migrated more than ten years ago (Figure 12). There was some connection between the slum that people ended up in and their district of origin; for instance many migrants from Bhola district were in the Cholonika slum, many from Comila in Korail, and many from Narayanganj in Begunbari. In the Lalbag slum the vast majority were not recent migrants and those who had migrated mostly came from elsewhere in Dhaka district. In general in the other three slums, people had quite diverse origins, potentially with implications for the ability of people within each slum to enjoy a sense of trust or connectedness.

Figure 12. Migration status of primary caregivers, by study area



To what extent is being a recent migrant associated with a lack of social connections? Cross-tabulations (Figure 13 and Figure 14) suggest, as expected, that being a recent migrant is associated with: fewer relatives and friends nearby, being less likely to know a slum leader, and less likely to belong to an organization. Very recent migrants (less than 2 years) less often felt secure from eviction. (A surprisingly high proportion of non-migrants also did not feel secure from eviction, likely reflecting specific eviction threats at the time of the study, particularly in the Lalbag study area where people were predominantly non-migrants.)

Figure 13. Number of friends in Dhaka by migration status**Figure 14. Security from eviction by migration status**

In general most of the households seemed relatively well connected, at least in terms of numbers of contacts. Some 21% of households had a member belonging to some type of organization; over 90% had relatives either in the slum or elsewhere in Dhaka; 30% had 'lots' of friends; and 69% knew a slum leader.

Disaggregating by study area (Table 18), credit organizations seemed to be more active in Cholonika and Korail. Taken together with the evidence on NGO schools (see above), there appears to have been a relatively strong NGO presence generally in these two slums. Those in Lalbag were much more likely to have relatives nearby and to have lots of friends than in the other slums, presumably reflecting that they had been there longer. The Lalbag residents were also more likely to know a slum leader. Despite this, though, they appeared not to feel safe from eviction at the time of the survey.

Table 18. Social variables by study area

(%)	Cholontika	Korail	Lalbag	Begunbari	total
credit organization	28	18	12	11	17
women's association	1	1	6	0	2
other organization	4	1	4	1	3
have relatives in the slum	79	75	97	57	79
have relatives elsewhere in Dhaka	66	70	84	82	76
lots of friends	22	33	41	18	30
some friends	62	58	46	38	50
no friends	16	9	13	43	20
know a slum leader	64	65	89	50	69
feel secure from eviction	86	60	3	90	54

Other variables relating to social connections and networks were not strongly correlated with each other (Table 19). There were relatively strong correlations between belonging to an organization, having lots of friends, and knowing a slum leader. Although it would be possible to construct an index of social capital (see, for example, Cueto et al., 2005, which uses principal components analysis to achieve this), I decided that retaining the original variables for use in subsequent analysis would permit easier and more confident interpretation, and avoid throwing away meaningful variation, in light of their fairly weak correlations and the ambiguous relationship between recent migration and security from eviction.

Table 19. Pair wise correlations of social connection variables

	credit organization	women's association	other organization	relatives in slum	relatives in Dhaka	lots of friends	some friends	few/no friends	know a slum leader	secure from eviction
migrated < 2 yrs ago	-.02	-.06	-.07	-.09	-.08	-.20	.16	.02	-.20	.15
– 2-5 years ago	-.04	-.03	-.03	-.21	-.11	-.16	.08	.08	-.06	.21
– 5-10 yrs ago	.02	.02	.05	-.06	.06	.01	-.01	.00	-.02	.12
– >10 yrs ago	.05	-.02	.02	.07	-.01	.14	-.14	.01	.12	-.03
non-migrant	-.02	.09	.02	.23	.12	.13	-.04	-.10	.10	-.39
credit organization		.00	-.04	.04	.09	.15	-.08	-.06	.01	.12
women's association			-.03	.08	.03	.21	-.13	-.08	.11	-.12
other organization				.06	.06	.06	-.01	-.05	.03	.00
relatives in slum						.20	.07	-.32	.05	-.22
relatives in Dhaka						.19	-.07	-.12	.01	-.10
lots of friends									.23	-.07
some friends									-.05	-.02
few/no friends									-.20	.11
know a slum leader										-.17

Note: green and red colours highlight positive and negative correlations, respectively

While households may have had a large number of connections, the interviews are revealing in terms of what valued resources they could access through these connections. The diversity of origins and poverty limited trust within the slum, and also because of their evident poverty (shown, for instance, in the clothes they wear), people felt cut off from society beyond the slum.

Different types of people live here, so it is very tough to maintain good relations with all.

– *Lalbag*

There is no society in slums. Everyone thinks about themselves, no one else, like the road in front of my house needs to be fixed but no one does that.

– *Cholontika*

The slum contains different types of people from different districts. You can trust nobody here. Besides, the money that we earn gets spent for the cost of food only. We can't have good food even if we would like to. We can't wear good clothes, and can't move in good society.

– *Cholontika*

This is in line with earlier studies noting that heterogeneity, mobility, and uniform poverty make it difficult to establish the types of cooperation and reciprocity that would bring large material advantages (Rakodi, 2002; Cleaver, 2005; see section 2.1.6). People living in Lalbag, mostly Hindus of Indian origin, appeared to have an additional barrier to social connections both within

and beyond the slum, reporting that quarrelling with ethnic Bengali people was the biggest problem they faced, and that they were despised because of their jobs as sweepers.

No one in the society treats our children well. Often they use slang with us.
– *Lalbag*

5.7. Summary

This chapter has described the types of resource that households in slums have or can access socially. People living in the study areas had very low incomes, rarely taking them above the poverty line, and at the time of the study were facing additional pressure from high food prices. But the chapter has also shown how there is significant heterogeneity within and between slums: some slum households are much better off than others.

Most households rent their dwellings; around 14% either own them, or formally rent them but are paying little or no rent. Credit was available in slums from small businesses, and they were able to borrow small sums from neighbours if needed. Some owned goods such as a television or mobile phone, but very few owned assets such as a bicycle or rickshaw that could aid them in producing income. An index of assets shows that people living in one of the four slum area (Lalbag) were dramatically wealthier than the others.

Over 80% of the households in the survey were living on less than US\$1 per day per person. They had to work long hours to balance their budgets and to cope with the demands placed on their time by living in the slum environment (such as having to collect water). There was some variation in occupations, with one slum being dominated by street sweepers, while rickshaw puller, day labourer, small business and garments work were among the most popular occupations for heads of household elsewhere.

A typical household consisted of 2 or 3 adults and 1 or 2 children. A minority were female-headed, although the female-headed households did not have significantly higher or lower incomes. A quarter of children had been sick in the last 30 days. Children from the richer wealth quintiles were significantly taller for their age than children from poorer households.

The slum environment was generally a challenging one in which to live, work and go to school, and placed large demands on household members' time. Households used shared water sources and toilets, sometimes with long queues, and cooked on wood stoves. Security was a common problem.

The set of schools varied greatly between the different slum areas. One slum (Lalbag) had a government school within it as well as a large NGO school beside it and private schools nearby, while in another (Korail) NGOs and private schools were filling the gap left by the absence of

government schools. Most households had sources of information they could draw on, but the wealthier were much more likely to have (for instance) spoken to a teacher than poorer ones.

Some 20% of primary caregivers were not migrants, and a further 40% had migrated more than 10 years ago. People came from quite diverse districts of origin. Being a recent migrant was associated with a lack of social connections in the local area. People felt cut off from society beyond the slum and there appeared to be little sense of solidarity or cooperation between neighbours within the slum. Although many had relatives and friends, and used informal credit mechanisms, the resources they could access through these connections were rather limited.

Chapter 6. How households use their resources for education

The previous chapter described what resources households have. In this chapter I seek to establish how they use these resources for education, under the headings I described in the framework in Chapter 2. The aim is to understand the ‘costs’ of education, not just in financial terms, but in terms of the other resources that a household may need to draw on to get access to education. The resources needed will naturally vary with the quantity (years in school) and form of education (type of school, whether private tuition is included), so this chapter is concerned in particular with describing the relationship between households’ use of resources and the level and type of education they get in return.

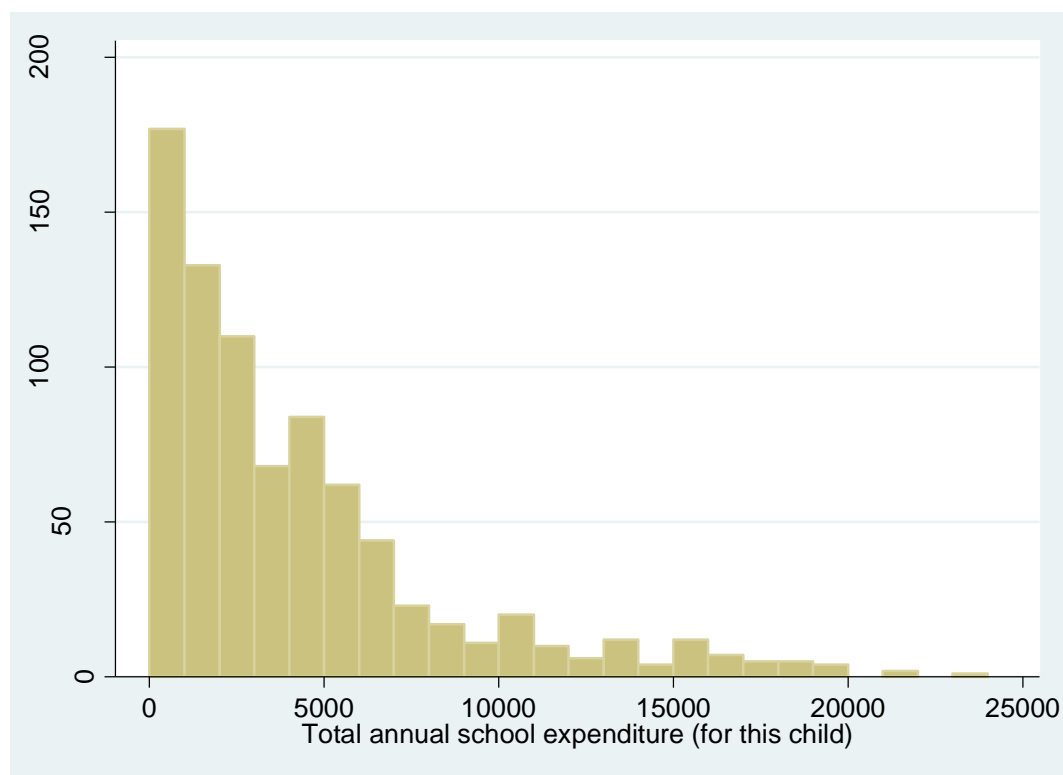
6.1. Covering school costs

The literature reviewed in Chapter 3 has shown that poor households in Bangladesh sometimes have difficulty meeting school costs, while Chapter 5 has shown just how constrained are the budgets of many households living in the slums. This section examines how much households are paying for schooling and private tuition in the slum study and how this relates to the type and grade of education they are receiving.

On average, households spent about Tk. 4200 per year per child in primary school, including food for the child to eat during the school day. Excluding food – a cost which would presumably still be incurred if the child was out of school – the mean is around Tk. 3100. In absolute terms, the largest (non-food) expenditure item was private tuition, but as a proportion of total expenditure (excluding food) on each child, the largest item was school uniform (33%) followed by private tuition (25%). This puzzling difference (between the ranking of expenditures in proportional and absolute terms) is explained by the skewed distribution of expenditures (Figure 15 and Figure 16). The median non-food school expenditure is only Tk. 1700. For children on whom relatively little is spent (the first two quintiles in Figure 16), school uniforms dominate, while for those on whom a lot is spent, private tuition and fees dominate.

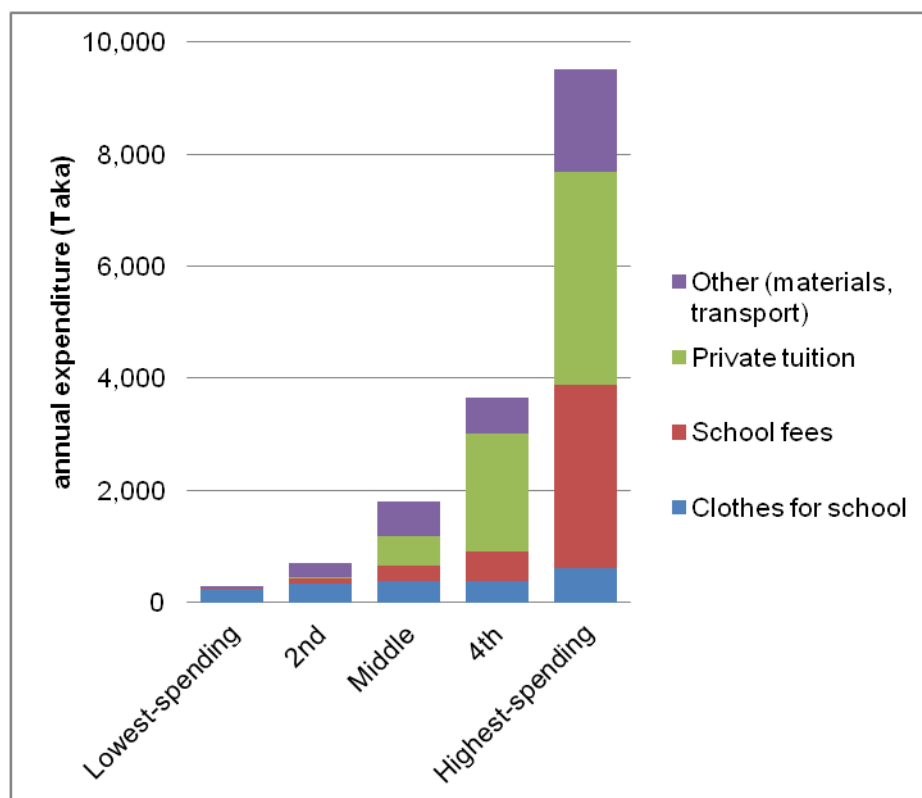
Table 20. Average annual costs per child in primary school (Taka)²⁰

	Mean annual expenditure per child in primary school (Taka)	Mean expenditure on each item as % of total expenditure excluding food
Food	1103	
Tuition fees	368	5%
Exam fees	113	4%
Admission fees / session charge	310	6%
<i>School fees sub-total</i>	790	16%
Private tuition	1194	25%
Materials (pens, pencils, exercise books)	564	22%
Transport	75	1%
Textbooks	179	3%
Clothes for school	353	33%
Total	4242	100%

Figure 15. Distribution of total annual expenditure (school-going children, grades 1-5)

²⁰ The questionnaire asked parents to estimate some costs on a weekly basis, some on a termly basis, and some on a yearly basis. I have arrived at yearly costs by assuming 38 weeks and three terms in a school year.

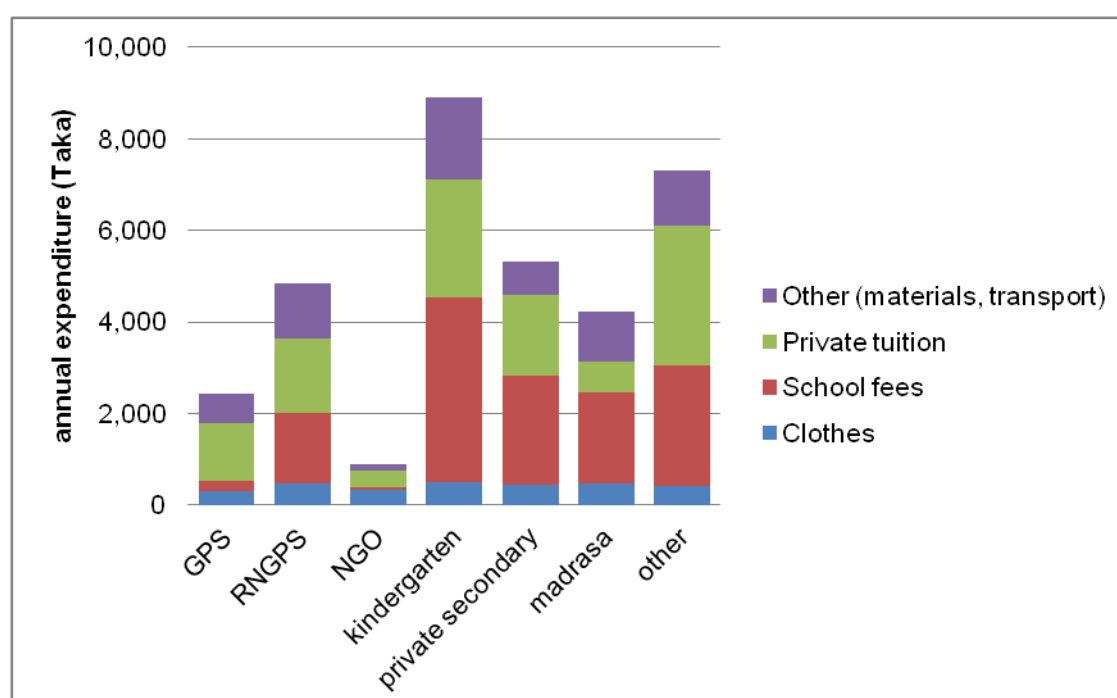
Figure 16. Expenditure by category, broken down by total expenditure quintile (excluding food)



Expenditure was higher in wealthier households: the richest spent more than twice as much overall as the middle wealth quintile, and more than five times as much as the poorest.

Expenditure varies dramatically by school type (Figure 17): it is three times higher in kindergarten than in government primary schools, and lowest of all in NGOs. 96% of children in GPS were paying some kind of fee. These fees were low, but nevertheless represent a failure of the school or authorities to enact a household's officially recognized rights, according to which such schools are supposed to be free.

Moreover, the small amounts needed for fees in government schools were supplemented by much larger sums spent on private tuition. School fees are relatively high in private schools (kindergarten and private secondary schools). Clothing is the only expenditure category that stays more or less constant across school type.

Figure 17. Expenditure by school type (grades 1-5)

These expenditures may seem small in absolute terms. But they often constituted a substantial part of household income (Table 21) – on average, 5% of household income per child in primary school. The proportion was particularly high in kindergartens, even though households with children in kindergartens have higher income, and would probably prohibit households from sending several children to a kindergarten. It also appears to rise with grade. Very few students in the sample received any kind of scholarship, confirming that the proposed expansion of rural primary education stipends to urban areas (see Chapter 3) had, at the time of the survey, not happened.

Table 21. Annual school expenditure per child (excl. food) as % of household income, grades 1-5

GPS	3%	grade 1	3%
RNGPS	7%	grade 2	4%
NGO	2%	grade 3	4%
kindergarten	13%	grade 4	6%
private secondary	9%	grade 5	8%
madrasa	6%		
other	12%	average	5%

6.1.1. Regression analysis: costs, school type and grade

Costs are likely to vary with school type and with grade. Potentially, they could also vary depending on the child's attendance – for instance because more expenditure is required on

clothing, materials and transport to make sure that children attend regularly, or because unofficial fees might be lower for children who do not attend regularly. I test this by regressing grade, school type dummies, and a dummy for whether a child has been recently absent or is absent seasonally, on total expenditure and individual expenditure categories (Table 22). Private tuition is excluded from this analysis as it is treated separately below.

Total expenditure rises with grade, by about Tk. 160 per grade on average, mostly due to larger expenditure on clothes and materials at higher grades. Compared to government schools, NGO schools are cheaper, but the difference in fees is only weakly significant. The significant differences are in materials, which tend to be provided in NGO schools but have to be bought in government schools, and in clothes, which surprisingly appear to cost more in NGO schools than government schools.

Other types of school are all more expensive than government schools. School fees and expenditure on clothes are higher in RNGPS, kindergartens, madrasas, and private secondary schools than in government or NGO schools. Children in kindergartens and madrasas spend significantly larger amounts on transport; it appears that children travel further to these school types. For children in RNGPS, kindergartens and private secondary schools, more is also spent on materials than in government schools, NGOs, or madrasas.

Absence does not seem to bear much relationship to expenditure. Irregular attendance does not seem to allow parents to spend less. However the dummy variable used here is not a perfect indicator of irregular attendance, as there are many reasons a child could have been absent during the past week.

Table 22. Coefficients from regressions of grade, school type, and attendance on total annual expenditure and specific types of expenditure, grades 1-5

	school fees	clothes	transport	materials	total, excl. food / private tuition
Grade	30	29 **	10	80 **	157 **
RNGPS	1349 **	160 **	83	482 **	2439 **
NGO	-149 †	45 **	-33	-438 **	-608 **
kindergarten	3841 **	209 **	218 **	958 **	6102 **
madrassa	1837 **	163 **	338 **	105	2586 **
private secondary	2173 **	125 **	85	-54	2940 **
other	2432 **	97 **	255 **	294 **	3572 **
absent	56	-33	-18	16	54
constant	122	235	15	406	797

Note. School types are included as dummy variables; the baseline is GPS. 'absent' is a dummy variable indicating whether the child was absent during the past week or is absent seasonally

*Significance: ** $p < 0.01$; * $p < 0.05$*

How do parents meet these costs? Asked about the main source of income used for educational expenditure, 99% said it was taken from the family's own income; in just 4 cases did they say they took loans from relatives²¹. Given the limited amounts of assets owned by most households and their low incomes, it is doubtful whether they are able to smooth consumption in cases of unexpected expenses or loss of income. People were apparently able to obtain some credit, from shopkeepers and by borrowing small sums from neighbours, but they did not draw on their social networks to a very large extent. In response to a separate question about financial help, a few parents with school going children (7%) said they needed occasional financial help from others to send their children through school; none said they needed continual financial help. 14% said they needed help with homework – although the much larger proportions paying private tutors suggest that more would have taken assistance from (say) friends or relatives if it had been available. Considerations of the family's pride and respect may come into play here, as well as the fact that in the slum, there may have been few educated people who were willing to help without charging for this valued service. In one interview in a small slum, I asked a participant whether people helped each other. The response was negative:

²¹ Borrowing money from informal or formal credit sources was not listed as a separate option. Only in one case did someone say they had an 'other' source for education expenditure (and the exact source was not given). Admittedly, this question may not make sense to parents, as they may not earmark particular parts of their income for education expenses, particularly if their education expenses are manageable and predictable.

... people don't always help here. Everyone is on their own and even in cases where people are able to help they are often not willing. Asked why this is so, they said this is "just the way they are" and emphasised that everyone is poor.

– *notes from small slum interviews*

It seems in this case, at least, there were few resources that parents could draw on through their social networks in the slum.

6.1.2. Private tuition

It was noted in Chapter 3 that private tuition has, according to other studies, become a "norm" in Bangladesh, albeit a norm that many can still only aspire to: around 30 to 40% of students are said to take private tuition, rising to 50% in urban areas. Does this apply even in slums, where most parents are poor and have low levels of education, putting them in the group that previous studies have found less likely to use private tuition? This section will address the extent to which private tuition figures in the total expenditure on education.

Over half of the children in the sample who were in primary grades spent some time in private tuition in the past week – typically one and a half hours per day (Table 23). Private tuition largely seems to complement other school expenditures rather than substitute for them. It is strongly positively correlated with other school expenditures, both in taka terms and as a percentage of household income.

As Table 23 shows, children in private schools spend more time in private tuition than those in government or NGO schools, and those in kindergartens also seem to spend more per hour. Only a quarter of children in NGOs had any private tuition, while more than half did in government and private schools. The estimated hourly rates for private tuition were minuscule – less than Tk. 20. Yet as we have seen, this could add up to a substantial proportion of household income. Children in kindergartens appeared to be paying more per hour than in other types of school, as well as spending more time in private tuition.

Table 23. Time in private tuition and cost per hour, by school type (grade 1-5)

	% spending some time in private tuition	average hours per day in private tuition		amount spent per hour (Tk.)
		(including zeroes)	(excluding zeroes)	
GPS	58	0.76	1.31	9.1
RNGPS	71	1.00	1.41	9.7
NGO	23	0.30	1.33	7.1
kindergarten	83	1.24	1.49	14.4
private secondary	83	1.23	1.48	7.7
madrassa	46	0.86	1.85	6.7
other	78	1.14	1.46	15.4
Total	51	0.70	1.38	9.9

Note. The amount spent per hour is only indicative; it assumes 38 five-day weeks per year.

Thus it is not surprising that for children in kindergartens, more was spent annually on private tuition than for those in government, RNGPS, and private secondary schools, controlling for grade and absence (Table 24). Private tuition expenditure was lowest in NGO schools and madrasas. It tended to increase by about Tk. 300 from one grade to the next.

Table 24. Coefficients from regression on annual expenditure on private tuition

	coefficient	
grade	288	***
RNGPS	408	
NGO	-729	***
kindergarten	1427	***
madrassa	-630	*
private secondary	371	
other	1818	***
absent	200	
constant	488	

Note: the base category for school type is government primary school (GPS)

*Significance: * $p < 0.05$; *** $p < 0.001$*

Focusing on older children can help us start to understand how private tuition might affect educational outcomes (Table 25). Among 11-15 year olds who took private tuition in primary school, 47% had progressed to secondary school, compared to only 13% of those who had not

taken private tuition. Though this correlation may reflect the influence of a third variable such as wealth, it is not far-fetched to suggest that private tuition plays a role in helping students progress. However, private tuition did not guarantee a timely transition to secondary school: 43% of those 11-15 year olds who had taken private tuition were still in primary.

Table 25. Current status of 11-15 year olds who took, or did not take, private tuition in primary

	private tuition in primary	no private tuition
dropped out of primary	8%	49%
in primary	43%	33%
dropped out of secondary	2%	6%
in secondary	47%	13%
total	100%	100%

Is the presence of other educated household members a substitute for private tuition? In other words, could an educated sibling or parent help a child with his or her schoolwork so that paid tuition was not needed? I test this by regressing the amount of private tuition on the number of household members with more than primary education, controlling for household wealth and income (see Appendix 1 for full results). I do not find any evidence that education of household members substitutes for private tuition. If there is any such effect then it is swamped by a larger effect in the opposite direction: there is a positive and significant effect of the number of other household members who are educated beyond primary education and expenditure on, and time spent in, private tuition. Better educated households spend more on private tuition, perhaps because other household members do not have time to help children with school work, or because older household members' experiences in school have led them to believe that private tuition is necessary. Having some education does not, of course, mean that people are necessarily qualified to teach on specific subjects, although the private tutors employed by households in this study did not appear to have specific teaching qualifications or degrees in most cases.

Children currently in secondary school and who had taken private tuition in primary, were asked who the private tutor was. In 27% of cases it was a teacher at the child's own school and for 38% a teacher in another school. For 32% it was someone else such as a young secondary-educated person living nearby. The costs did not vary significantly between different types of tutor.

Finding a private tutor is potentially a difficult process for parents who themselves may have limited education. To what extent do they draw on social resources to find a private tutor? One

way to test this is to focus on the hourly cost of private tuition, and ask specifically whether households with better social connections are able to get better value for money when they invest in private tuition. This could occur through being friends with the person who will give tuition, or through acquiring better information about the market for private tuition from one's social connections. Again, though, I am able to find no such effect using regression analysis (see Appendix 1). If anything, households with more social connections spend more per hour of private tuition, perhaps because they are able to mobilize resources through their connections that they can use to get more expensive, better quality, private tuition.

Parents' accounts of private tuition accepted a pedagogic model of lesson-learning in which the aim of school was to learn by rote material imparted by the teacher and repeat it during examinations. Covering the same material twice, once in school and once with a tutor, increased the chances of learning it. Failing to learn the material incurred the risk both of failure and of physical punishment.

Yes, it was beneficial [to send her to a private tutor]. Studying once at school and then with the private tutor, so the studying was better, she would understand and learn everything better.

– *father of girl, 15, who dropped out from grade 6 of a private secondary school, Cholontika*

She has a house tutor. So, she can finish her every day's lesson on time. She is doing well in the school, passing every class. The teachers always admire her. If she didn't have any private tutor, she wouldn't be able to make her lessons, might be beaten by the teachers and fail in the exams.

– *father of girl, 13, in grade 5 at an NGO school, Lalbag*

The problem for not going to any tutor is that, he couldn't finish his lessons properly and so was beaten in the school.

– *father of boy, 11, who dropped out from GPS grade 1 in the family's village, Korail*

However, private tuition was no guarantee of staying in school and progressing through the grades, and nor was it universally seen as needed.

Did your son benefit from having a house tutor?

To some extent, of course. During that time, he read attentively. He regularly went to school, fearing his teacher.

– *father of boy, 15, who dropped out from GPS, Lalbag*

My child never went to any house tutor ... They taught very well in the school, so no tutor was needed... there was no problem in her finishing each day's lessons.

– *father of girl, 14, who dropped out from grade 5 of an NGO school, Korail*

At least one child had progressed to secondary without the aid of private tuition. Notably, this was in an NGO school with secondary grades:

I can barely pay for her schooling, how would we pay for a private tutor? She didn't go because of the money. I have heard that teachers at school teach with care; but it was for want of money that I couldn't send her to a private tutor. If she went then maybe she could do better at her studies. Maybe she would learn the English better. She would have such benefits I think. Not going to a private tutor caused no serious problem. But I think she would have done better by going there.

– *father of girl, 14, in grade 7 at an NGO school, Cholontika*

But in a parallel case, a boy whose parents could not afford private tuition could equally not afford the costs of secondary school, and so he dropped out at grade 5.

To be telling the truth he didn't go [to a private tutor] because of the expenses. We couldn't enrol him on time for the want of money so how could we afford a house tutor? [*Name of NGO school*] doesn't require money and the teachers said that our son was interested in studying so he studied....

... we are uneducated parents, we don't know what to do to make his education better. Will I worry about the family or worry about this? ...

Every one used to say that my son has a good head. The teachers would say that he was very attentive to his studies. Maybe if we had a private tutor it would have been better.

– *mother of boy, 14, who dropped out from grade 5 of an NGO school, Cholontika*

Despite contemplating that “Maybe ... it would have been better” with a private tutor, this mother ultimately insisted that it was the family's inability to pay for secondary school that was the reason that her son could not continue.

6.1.3. Looking ahead: costs of secondary school

Although this thesis focuses on decisions about primary school, these decisions are not likely to be taken in isolation but with an eye towards the other parts of the education system. As I will discuss below (Chapter 7), while primary education is seen as beneficial in its own right, many parents and children see a secondary or higher education as necessary to reap the bigger benefits of a good, respected job.

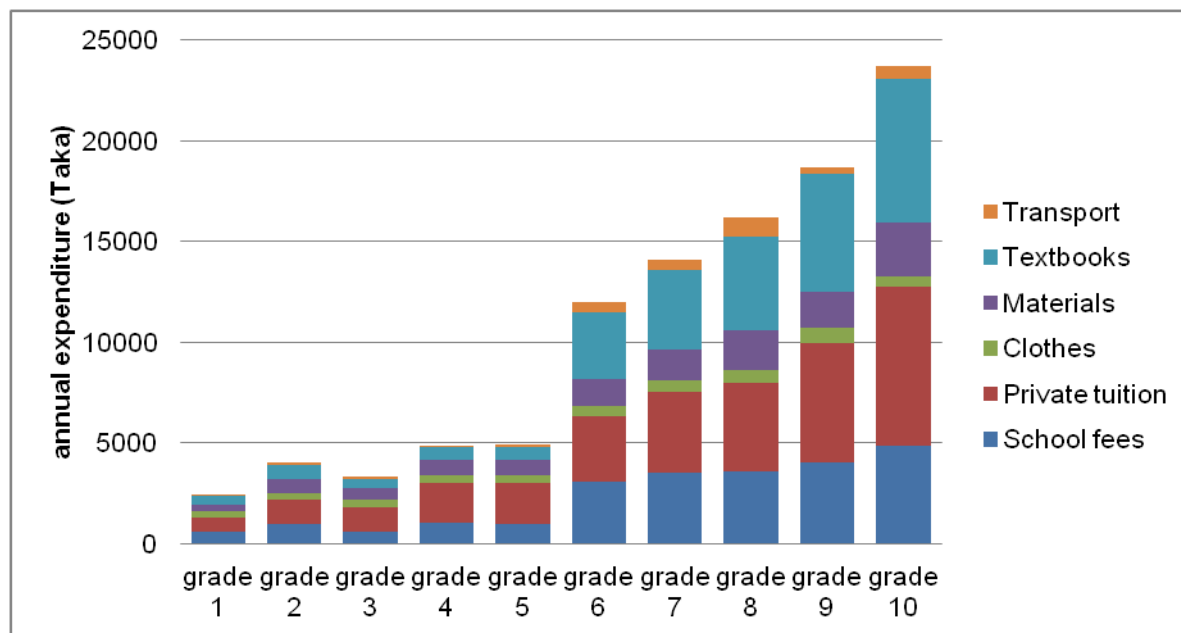
In taking account of how primary school could lead to secondary and further benefits, parents will also have to consider whether they can manage the dramatic increase in costs when children pass to the secondary level (Figure 18). Overall costs more than double between grade 5 and 6, and continue to increase steeply between grades 6 and 10. The increase comes in all types of expenditure but especially fees, private tuition, and textbooks. The difference is partly explained by the types of school that children were going to at the secondary level. A large majority (67%) of secondary students were in private schools. But costs were also high in government secondary schools. The NGO sector, which usually charges lower or no fees, was nearly absent

at the secondary level (4% of enrolments). Some parents' own accounts confirmed that costs were particularly a problem for the transition to secondary education:

... it was very difficult for me to earn and bear all the expenses of my family only by pulling a rickshaw. Besides, I didn't have the required money to admit two of my daughters in high school at a time.

– *father of girl, 14, who dropped out after finishing grade 5 of an NGO school, Korail*

Figure 18. Annual expenditures by grade, for school-going children in grades 1-10 (excluding food)



6.2. Managing the relationship with the school

What resources do households have to draw on to find or choose a school, get their child admitted to it, and manage the ongoing relationships with the school, its head-teacher and teachers?

First, they need information on what schools are available and their quality to be able to choose one. Past research (section 3.4.2) has shown how parents often have difficulty assessing quality. Above (section 5.3), we saw that most respondents in this study felt there were sources of information they could go to, to find out about schools in the area, including going directly to government schools; but 48% of parents of school-going children had not been to the school during the past 12 months and a similar proportion had not talked to a teacher; and wealthier households had generally had more contact with teachers, schools and NGO workers than poorer ones. Although in interviews parents noted clear differences between different schools, they were often vague about what these differences were.

Second, they need to negotiate bureaucratic obstacles to get children admitted into school. There was little to suggest this was a major reason for non-enrolment in primary school. However admissions tests were sometimes an obstacle to secondary education:

There are many schools where good result and admission test is needed for getting admitted. Education is expensive there but the quality is also better.

– *father of girl, 15, who dropped out from grade 9 of an NGO school, Lalbag*

It was also apparent that many parents did not enrol their children in school at the official age, potentially with damaging consequences for their ability to reach higher grades. 42% of children were over the expected age for their grade; 44% of children in grade 1 were age 8 or over when they should have been about 6. Overage enrolment was not significantly related to whether parents had talked with teachers or whether teachers had visited the household, but (as I will show in Chapter 8) was correlated with parents' education and possibly wealth. This suggests that direct sources of information or relationships with the school were less important for managing the beginning of school than a secure financial position and parents' own experiences of education.

Third, both parents and children themselves have to manage their relationships with teachers and other children within the school. As in past research (Ahmed et al., 2007; Banks, 2008) this appeared to present problems and require effort and work to overcome. Unlike in some other studies, teacher absenteeism was not raised as a major issue; it was only mentioned in one case as the main reason for dropping out of school. But 6% named finding school too difficult as the main reason for dropping out and 5% as a reason for enrolling a child overage.

As we saw above, a few parents mentioned that their children would likely be beaten if they did not send them to a private tutor to learn each day's lessons. When asked what, if anything, they disliked about school, several of the children and parents talked about being scolded or beaten by the teachers. As I will discuss in the following chapters, there were also examples of positive and supportive relationships with teachers. Furthermore, parents did not necessarily see it as wrong for teachers to scold or beat children who had failed to do the work required. But some focused on what they saw as teachers discriminating against slum children, resulting in unfair "judgements" where there were disputes between children or in marking work. Parents' social position in relationship to teachers was, apparently, not one from which they could demand equal treatment for their children.

There is nothing in school that I disliked. If the child can't learn his/her lessons, of course he/she will be scolded or beaten.

– *father of girl, 14, who dropped out from grade 5 of an NGO school, Korail*

Many children come back to home and say that they are scolded or beaten by the teachers in school. Besides, I dislike the teachers' two way attitudes. A teacher should treat every student in same manner, but they often take discriminatory steps.

– *father of boy, 6, never enrolled, Korail*

I don't go to school. But those who go to school and after coming home talk about many things of school; I like this. They say that in their school they sing, recite poems, dance... [But] I have learnt from them that in school they are beaten by the teachers. They are also neglected because they live in slums.

– *boy, 6, never enrolled, Korail*

When she used to quarrel with anyone in the school, the teacher came home and said to us that your daughter is naughty.

– *father of girl, 15, who dropped out from grade 9 of an NGO school, Lalbag*

Being bullied or teased by other children was also mentioned by several children and their parents, including in some cases being explicitly singled out for their status as slum dwellers, "sweepers", or "Indians" (a label applied to children from Hindu families who had migrated to the sweeper colony from other parts of British India during colonial times). Through the behaviour of other students, it appeared that students from slums could experience a kind of social exclusion even within the school, making their time in school less enjoyable and possibly contributing to drop-out (although participants did not directly make this causal link).

I don't dislike many things about school. But I heard one thing from my daughter that made me feel bad, which is, some children see the slum dwelling children differently. Because not many slum dwelling children study at that school they point to them and say that girls living in slums are not of good character. And some things like that are said. But not everyone is like that, only a few. Our children feel hurt at these comments. This is the only thing I dislike.

– *father of a girl, 15, who dropped out from grade 6 of a private secondary school, Korail*

There were two or three girls who used to tease me by calling me a slum girl and would ask me why I lived in the slum.

– *girl, 15, who dropped out from grade 6 of a private secondary school, Korail*

Sometimes friends misbehave with me; people rebuke us saying Indian or sweeper. The teachers also sometimes don't make the proper judgment.

– *boy, 15, in grade 11 of a private secondary school, Lalbag*

... when teachers [in primary school] used to ask me questions, I liked to stand up in the class and answer them. I also liked it when teachers gave lectures about certain subjects. ... There was nothing much that I disliked. But there were two or three boys in our class who were very naughty. They used to beat me up outside the class because they failed to answer properly in the class and I could. If I told my teachers the next day about this incident the teachers would never believe me. Because they used to lie when the teachers asked them.

– *boy, 14, in grade 9 of a private secondary school, Cholonika*

6.3. Supporting children's learning

Supporting children's learning here includes helping children with school work, monitoring their continued attendance, and lessening the burden of (paid or unpaid) work on them – activities that involve costs in terms of time and current income, and also draw on the knowledge other household members may have acquired in school.

6.3.1. Helping children with schoolwork and keeping them in school

As seen above, many children were studying with private tutors, and parents sometimes said they sent their children to private tutors because they were uneducated themselves and so could not help them with schoolwork. There were only three children in my sample where a relative acted as a tutor. But other children were helped informally with their school work by family members without this being labelled tuition:

J-- doesn't have a private tutor. He said that many children in his school do have tutors, though many don't. He doesn't have any problems with not having one because his older brothers went to school and can help him.

– *notes from small slum interviews*

It may be the case for some families that having at least one educated member with time to help the child is a substitute for paid private tuition. As discussed in section 6.1.2, though, the data does not suggest that more education in the family substitutes for private tuition.

Asked specifically whether children had asked parents for help with school work, about one-third of children (school-going or drop-out) had asked frequently and 40% occasionally (Table 26). Children of parents who had not finished primary school were much less likely to have asked for help frequently, presumably reflecting the fact that their parents were less able to give such help. But even when neither parent had finished primary, most children had asked for help at least occasionally, suggesting a strong need for parental support that parents were not always well-placed to provide.

Table 26. Has the child asked for help on school work from parents?

(%)	frequently	occasionally	rarely	never	total
neither parent finished primary school	22	43	11	24	100
one parent finished primary	38	40	10	12	100
both finished primary	60	28	6	5	100
Total	32	40	10	18	100

Asked how they usually responded when children asked for help, most parents said that they helped the child themselves (40%), asked another family member (31%), or asked some other

person (19%). Better educated parents more often helped the child themselves while the less educated more often asked other people. In households where neither parent had completed primary school, 11% responded that they were unable to do anything to help, suggesting that this minority have very little access to the types of resource – school knowledge, or friends or relatives with such knowledge who are willing to help – needed to support children through school.

Ensuring that children enrolled in school attended regularly was evidently not easy for many of the parents. Some 23% of children who dropped out had previously attended school irregularly. The main reasons given for this were that they did not value their studies or found school too difficult. Among school-going children, relatively few (7%) had reportedly been absent in the past week, but 9% had lower attendance rates during specific times of the year, usually because of poor road conditions during that time of year (probably the rainy season), or because the household needed them to work at home more during that time of year.

Thus the environment and need for children's work were instrumental in irregular attendance. These factors are discussed in more detail below. But some children were staying out of school by choice, because they were finding school too hard or boring, and because there were other things they preferred doing. Parents' disapproval of their children's wilful, independent behaviour and dishonesty was evident. I explore this in more detail in Chapter 8, as part of the discussion of the decision to drop out of school. My point here, though, is that parents do not have the resources – specifically, do not have the time or institutional support – to monitor children's attendance; children are able to stay out of school for some time without their parents finding out, something that would probably not be the case in a village or in a middle-class neighbourhood where teachers would likely note and report pupil absence.

6.3.2. Environment, nutrition, and healthcare

Parents within a slum environment are generally not able to provide a very conducive environment for children to concentrate on studies and to feel safe. Many aspects of the environment are beyond their control. Nevertheless there was variation between and within different slums, and better off households could at least spend some money on improved housing. Households paid significantly higher rent for dwellings in better physical condition.. Dwellings with a secure door, for example, on average had rents 25% higher than those without. However, no such differences in rent were apparent between houses with poor vs. good ventilation, electricity vs. no electricity, or which flooded sometimes or often vs. rarely or never. Houses in flood-prone streets actually had significantly *higher* rents than those in streets that flooded rarely or never. The correlation between rent and time spent collecting water was

weak. Furthermore, rent effects on housing conditions disappeared in logistic regressions when controlling for slum location.

These results suggest that there is relatively little scope for households to pay more for a better housing environment within the same slum, although they might achieve this by moving to a better area, where rents are probably higher. They also imply that households do not get the same value-for-money in terms of housing conditions in different slums; the decision over which slum to live in is therefore likely guided by other considerations, such as proximity to work opportunities. In interviews, participants brought up a wide range of reasons for coming to their present location, including for work, for better housing or lower rent than other slums, the ability to build their own house there, demolition of slums where they lived previously, and fleeing from criminal gangs.

As well as the physical environment of slums, the social environment could create problems for children's education. As noted above, parents are not easily able to monitor children's school attendance and complained about their children mixing with 'bad influences'. Parents in the slums echoed the concerns of some of the rural parents interviewed by Raynor (2005), who perceived schooling as endangering girls' morality and reputation:

My daughter is young but we kept having marriage proposals and I thought in this environment in the slum what I could do, so I agreed.

—*father of girl, 14, Cholutika*

Nutrition and healthcare are also important for children's educational outcomes (see section 3.4.3). As described in section 5.2.2, most (89%) parents were able to have their children vaccinated. But one-third of children were in mediocre or poor health. Vaccinations, health, and height for age varied significantly by wealth and income, suggesting that better-off parents can devote more resources to the health and nutrition of their children. Children who were taller for their age, who had been vaccinated, and who were in good health, were also more likely to be in school than those who had lower height-for-age, had not been fully vaccinated, or were in mediocre or poor health, respectively. (Chapter 8 will present the results of statistical tests on whether health and height were significant in determining school outcomes even controlling for other variables such as income.) Together, these pieces of evidence suggest a link from spending money on early child nutrition, children's vaccinations and healthcare generally, to better outcomes in school, although it is not possible to quantify this link without data on health and food expenditures when the child was young.

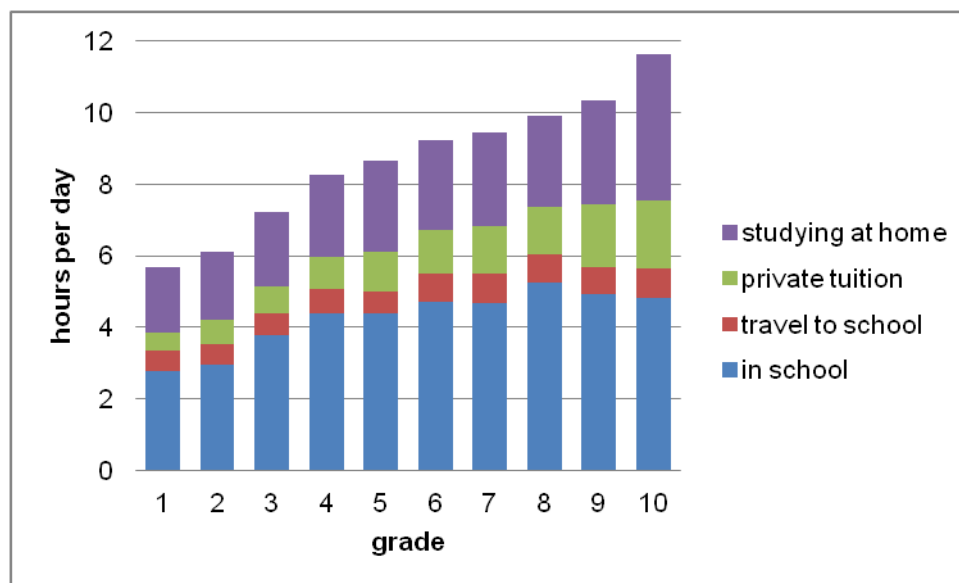
6.3.3. Child work and opportunity costs

My daughter studies for 5 or 6 hours a day and the rest of the time she does the entire house work. She works 5 or 6 hours a day, cooking, house work, getting water etc.
– father of girl, 14, in grade 7 at an NGO school, Cholontika

The opportunity cost of attending school is the lost income that children would have earned if they had worked instead of going to school, plus the value of unpaid work such as caring for younger siblings and helping parents in the house or in family business, plus the value of lost leisure time, and of activities that, though they may be seen as leisure, have long term economic value. The latter could include, for example, forming friendships with people in the neighbourhood, and informal learning of the type that goes on outside of schools in many settings. The total opportunity costs depend both on the amount of time a child spends in school and the value of each hour of alternative activity that they could be doing. So in what follows I look at how children spent their time, how much they could earn in paid work outside school, and at what parents and children said about the value or importance of children's activity outside school.

The amount of time children spent in school was in many cases not very large – averaging less than 3 hours a day for grade 1 students and 4½-5 hours for grades 4 and above. But adding in private tuition, travel to school, and studying at home, roughly doubles the total time use for education (Figure 19). It should also be noted that 19% of school-going children at grade 3 or above had repeated a grade at least once, and a few had repeated two or three times. Grade repetition means that a heavier investment of time and money is needed to reach the same level of learning and qualifications.

Figure 19. Time used for education by school-going children



Note: the sub-sample in grade 10 was small (11 children) so may not be representative.

Our interviews revealed that some children, especially aged 12 and over, were spending quite long hours working, in some cases combining this with school. Depending on their age and school type, girls spent from half an hour (average at age 6) to one hour and three-quarters (age 14) a day doing household work; boys spent around half as much time on household work. Very few school-going children were reported to be doing waged work or work in the family business, especially at the primary school level.

Behind these averages was a very skewed distribution of child work. About half the children in primary grades were spending no time at all on any kind of work; 20% were spending an hour a day; a further 20% two hours a day; and the remaining 10% three or more hours a day. Children in government schools were doing the most household work and the most work overall, while those in NGOs were more likely to be doing paid work outside the home (Figure 20). The case cited above of a girl working 5 or 6 hours a day was exceptional, and probably only compatible with education in an NGO school, which make less demand on students' time than other school types (Figure 21).

Figure 20. Time spent working, school-going children in grades 1-5, by school type

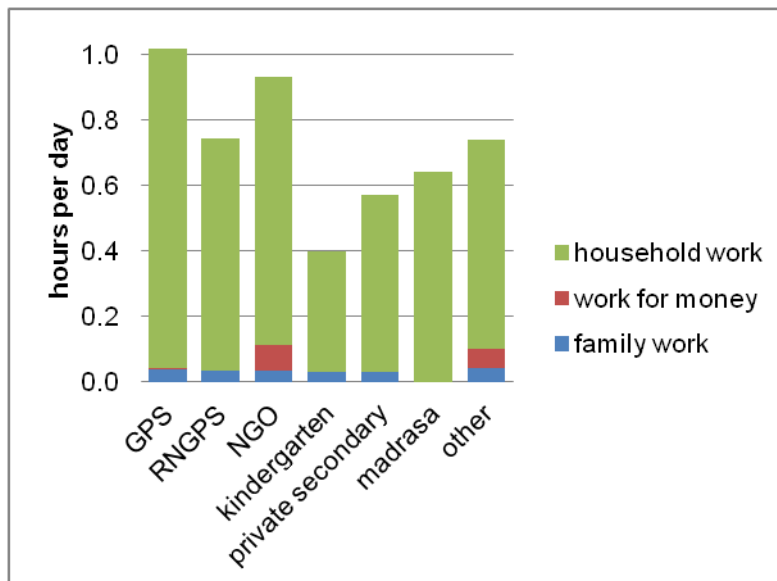
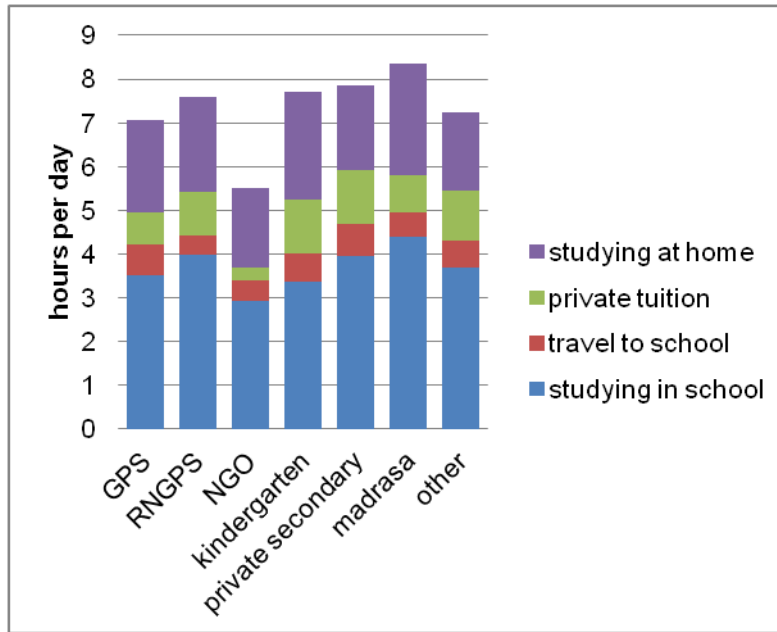


Figure 21. Time spent studying, for school-going children in grades 1-5, by school type

Since the work of children who were in primary school was mostly unpaid work in the household, it is difficult to assess how much value is attached to this work. As noted in Chapter 3, children's work may be valued highly despite not being highly paid, for instance because there are social and cultural boundaries on what constitutes acceptable work for children and adults (Delap, 2000). In past studies, many urban parents have reported that their standards of living would fall if children stopped working, and a minority that it would be hard to survive if they stopped (Ali, 2006).

In the present study, very few parents said that children had never been enrolled because they needed to work (the chief reason was inability to afford costs). But for 8% of girls who had dropped out of primary, the main reason was so that they could help around the house or because they had to help looking after other family members. A further 8% had dropped out to work outside the household. These numbers were smaller for boys: 3% had dropped out to work within the household, 2% to help with family business, and 3% to work outside the household.

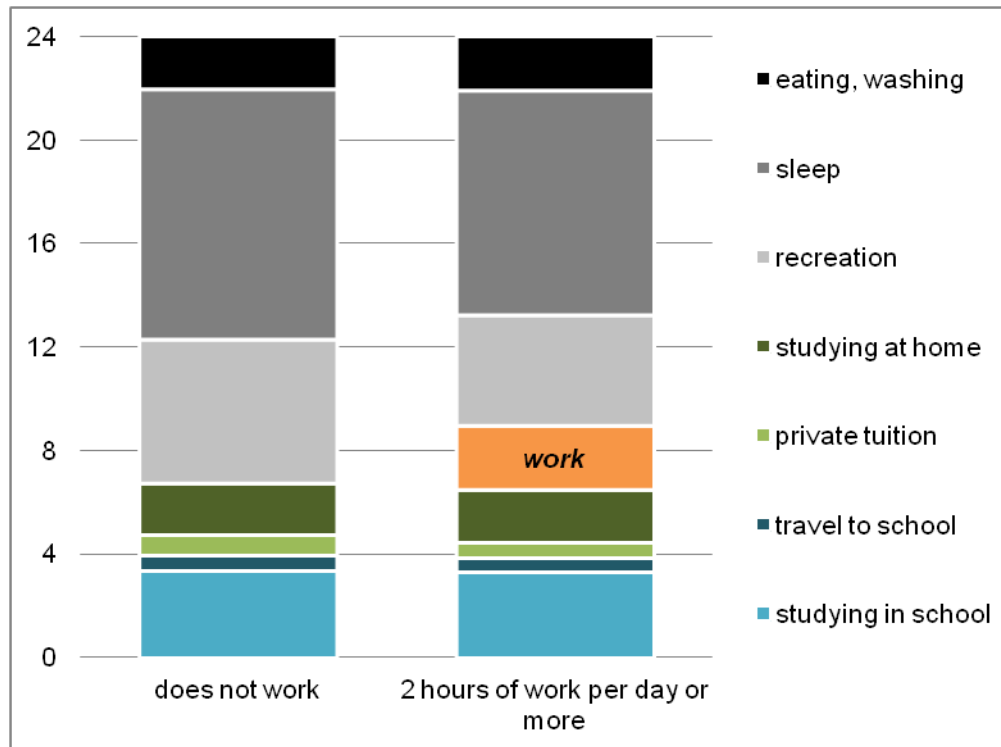
For children aged 11-15 who did paid work, their hourly pay rates were typically around Tk. 10 per hour, and not significantly different between girls and boys. This might sound low, yet if children spend around 40 hours per week in school, private tuition, or doing homework (as is the case for grade 5 students – see Figure 19 above), then the opportunity cost of school at this hourly rate would be around Tk. 1500 per month, or about 20% of the mean household income in this sample.

Compared to Korail and Begunbari, children's wages were significantly higher in the Lalbag study area, where very few children took paid work, and significantly lower in Cholonika,

where the largest proportion of children were in paid work. There are a number of possible interpretations of this. It could be that there are higher returns to school for people in Lalbag and so children will only drop out of school to work if a (relatively) good wage is on offer. Or there could be more competition between child workers in Cholontika because there are fewer schooling opportunities and so a larger supply of children with nothing else to do. I will return to this issue in Chapter 8. Alternatively, it could just be that there are both better child labour opportunities and better access to schools in Lalbag, and that Cholontika is worse on both fronts, perhaps due to its relative distance from the city centre and major commercial areas.

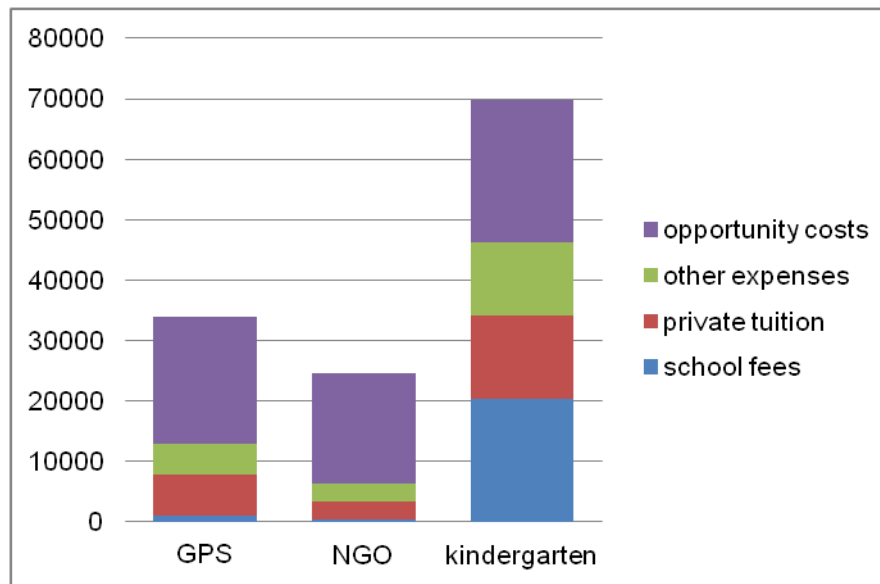
While differential child labour opportunities are a potential source of gender inequality in enrolment rates, no such effect was evident for primary school age children in either the survey or interview data. Interviews with the parents of teenagers revealed that boys sometimes dropped out to work or start apprenticeships. Girls dropped out both to marry and (more often) to start work, usually in the ready-made garments industry. Amongst 11-15 year olds, the proportion working was the same for boys and girls (32%). Boys worked slightly longer hours and were more likely to be doing paid, rather than household work.

Does time spent working detract from time spent in school? Checking for a negative statistical association between the two types of time use (school and work) I was unable to find any significant relationship. It appears that extra time (relative to the average) spent in work or education gets taken out of leisure and sleep time, rather than work and education offsetting each other. Remarkably, school going children who work two hours or more spend about the same time studying as those who do not work at all (Figure 22). Instead, they spend less time sleeping and in recreation.

Figure 22. Time use by school-going children, grades 1-5, by total work hours

Note: 'work' includes working for money, in a family business, and work in the household.

As discussed in section 6.1 above, school fees charged to children in this study were for the most part quite low at primary level, at least in absolute terms. But taken together with private tuition and other expenses such as materials and clothes for school, they amount to a substantial part of an average household's income. And the opportunity costs, although I can only estimate them, may well outweigh these up-front costs (Figure 23). Even assuming that children's time is modestly valued at zero for children studying in grades one and two and Tk. 5 per hour for those studying in grades three to five (about half the average rate that working 11-15 year olds were able to make), the opportunity costs were more than half of the total costs of completing primary school in GPS and NGO schools, and around a third of the total cost for those in kindergartens. Opportunity costs, and thus also total costs, would be drastically reduced in NGO schools that deliver a condensed curriculum in three years.

Figure 23. Rough estimates of the total cost (in Tk.) of a primary education (grades 1-5)

Note: the estimates assume that children's time is valued at 0 in grades 1 and 2 and at Tk. 5 per hour in grades 3-5. Repetition is ignored; it is assumed it takes five years to complete primary education.

Of course, a child's time may be valued in the decision process for reasons other than financial returns to child labour, not least by the child him- or herself. It is difficult to quantify this but there are several indications that it is a significant factor in school decisions. As seen above, children spent a few hours each day in recreation, and for children who both work and go to school, part of that time is lost. Interviews revealed that children dropped out to take unpaid apprenticeships as well as unpaid work, suggesting that practical training to do a job is sometimes seen as a better bet than school. 18% of non-school-going 11-15 year olds were not working either within or outside the household.

As noted in section 5.2.1 there were fewer teenagers than one would expect in the sample, especially boys aged 13-15 and in Cholonika and Korail, the study areas with the highest rates of working children. If these missing teenagers have left the household to work elsewhere, then the true problem of children leaving school to work would be under-stated. If the age distribution was even within each slum (the number of 10-24 year olds was in line with the numbers of 5-9 and 25-29 year olds), the number of working 11-15 year olds could increase from around 30% to around 50%. Further research is needed here, however, as these missing teenagers could alternatively be attending schools or madrasas elsewhere, or could have stayed in the village when the family migrated.

The opportunity costs of school are offset both by the potential long term benefits and by the shorter-term enjoyment that children and their parents get from attending school. On the other hand, if schooling is not enjoyable, it can be compared to an onerous form of work and the

alternatives become relatively attractive. Given the emphasis on rote learning and curricula that are not necessarily relevant to children's lives, it might be expected that at least some children would mention boredom at school amongst their 'dislikes'. SIDA's Reality Check survey (SIDA Bangladesh, 2010) argues that children drop out of school because they do not like it or are failing rather than for economic reasons (although the evidence basis for this claim is unclear).

As I will explain in Chapter 8, inability to afford expenses was cited far more often than other reasons for dropping out in the present study. But some do drop out because they 'do not value study' or are bored. Behind these given reasons are presumably alternative ways to spend time that they enjoyed more.

6.4. Summary and conclusions

This chapter has examined what resources households use to get education, dividing these between those used to cover the costs of schooling, those used to manage the relationship with the school, and those used to support children's learning. The main findings can be summarized as follows:

- On average, households spent about Tk. 3100 per year per child in primary school, excluding food, or about 5% of household income per child in primary school.
- The amount spent rose with grade and was much higher in private schools than in government or NGO schools.
- Expenditure was mainly on school fees and private tuition; both were highest in private schools (kindergarten and primary grades in private secondary schools) and lowest in NGO schools.
- Over half the children going to primary school, were attending private tuition, typically spending one and a half hours per day.
- Private tuition was seen by many parents as necessary to learn the material covered too quickly in class and avoid punishment or failure in tests.
- Costs of secondary school are radically higher, partly because there are few NGO schools offering secondary grades. Average costs more than double between grades 5 and 6.
- Many parents had not recently been to the school or talked to a teacher, and some complained of teachers discriminating against children from slums, or being bullied or teased by other children.
- Some children were helped with their school work by older siblings or parents, but this was less likely where parents had not finished primary school themselves.

- The physical and social environment of the slum could create problems for children's education, and some parents were not easily able to monitor their children's attendance or behaviour generally.
- On average children spent around 3½ hours a day in school, though this increased with grade, but also spent a similar amount of time in private tuition, studying at home, and travelling to school.
- Half of school-going children spent some time working (including housework); 10% were spending three or more hours a day. However, work seems to take time from leisure and sleep rather than from school, and was rarely cited as a reason for never-enrolment.
- A small number of children, mostly girls, had dropped out to help around the house or to work outside the household.
- Although dropping out for work was rarely reported, the opportunity costs of going to school likely outweigh the fees and other direct costs.

I have described how households struggle to use their limited resources to help children with schoolwork, keep them attending school, and manage relationships with and within the school. The level of useful learning and educational qualifications they get in return for these efforts may be quite limited, especially because it is hard for children to carry on into the latter grades of secondary school. In the next chapter I will examine what parents and children see as the real benefits of the education that they attain, before considering in Chapter 8 whether and how these perceptions help them to decide and justify the resources they use for education.

Chapter 7. Benefits of education

This chapter aims to describe the current and expected future benefits of education for children from poor urban households, and how these vary with school type, private tuition, and the amount of time spent in school. The main source of data is survey results on parents' and children's expectations and hopes about what their child will do when he or she is older, combined with interview responses where parents and children talked about the benefits of school and their thoughts about the child's future life.

In section 2.3 I noted that in examining household decision making about education, studies tend to focus only on the productivity-enhancing benefits of education (in the human capital and rates of return to education literature) and on the use of educational qualifications as a signal to employers (in the screening and signalling literature). Other benefits to education are widely recognised, for instance in domestic work, family planning, reducing child mortality, raising children and educating the next generation of children, yet households themselves are not depicted as taking these benefits into account in their decision-making. In the Bangladeshi context for example, benefits in terms of marriage for girls may be particularly salient (see section 3.5).

The following sections focus firstly on the labour market benefits, by looking briefly at the relationship between education and income among the current generation of household heads, and then by looking at the expectations of parents and children regarding children's future occupations. The remaining sections are about non-labour market benefits, and are guided by a rough division emerging from parents' and children's interview responses, between benefits in terms of respect and becoming a "real person," benefits in terms of marriage and family life, and the shorter-term benefits in terms of pleasure and pride. The question throughout is: what level of benefit do people expect for what level of education? Finally, I draw on previous literature as well as data from the interviews and survey to try to assess how accurate expectations are.

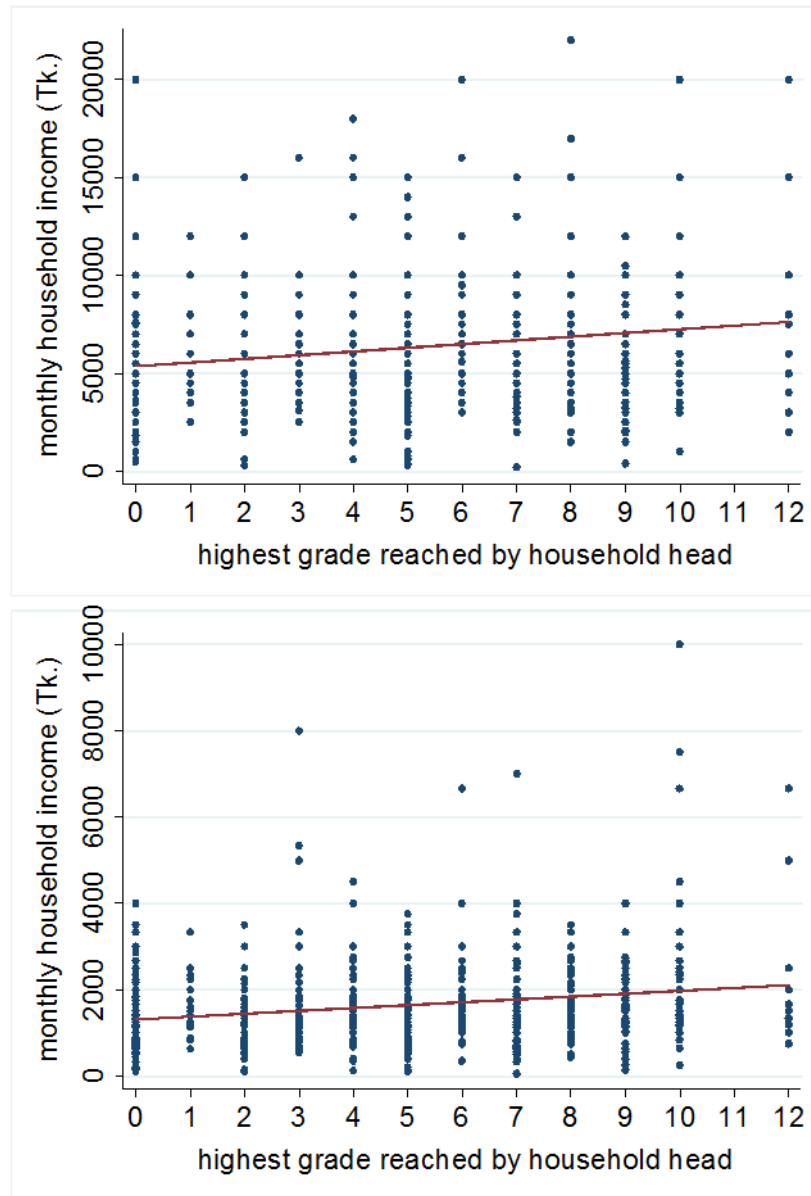
7.1. Household head's education and income

Perceptions about the benefits of education in the workplace are likely to be influenced to some degree by the labour market benefits of education for the current working generation.

Correlating the education level of the household head with household income provides some indication of whether education pays in terms of future salaries in the context of the slum study areas (Figure 24). As the figures show, there is very wide variation in incomes at each education level. Overall, the relationship is positive, and although not a particularly strong one, statistically significant. An extra grade in school was on average associated with around Tk. 190 of extra household income per month. The relationship was slightly stronger when looking at

per-capita household income rather than total household income, reflecting the fact that households with better-educated heads also tended to be smaller. Still, only 4% of the variation in per capita incomes can be explained by educational levels.

Figure 24. Household income (total and per capita) by education of household head



Note. The lines plot the predicted values if income is taken as a linear function of the highest grade reached by the household head. The blue dots show individual data points (some are hidden due to large numbers at similar income levels).

There are at least two possible causal processes underlying an education–income correlation: First, that more educated household heads earn more as a consequence of their education. Second, that some household heads have characteristics such as intelligence, motivation, inherited wealth, or better social connections, that enabled them to get both more education and more remunerative work. Since we did not collect information on the background of the

household head (apart from where he or she migrated from) I cannot assess the relative importance of these two causal processes. But even combined, they only explain about 4% of the variation in (per capita) incomes (and less of the variation in total incomes). So if parents and children look only to the current labour market to try and understand what the benefits of education will be, they may not find very strong financial incentives for education there. As the following section will explain, however, they in fact aspire to very different occupations for children than those currently being done by household heads.

7.2. Expected work benefits of education

Asked which benefits of education were likely to be most important for work or livelihoods, parents of both school-going and drop-out children agreed in roughly equal numbers that reading instructions, writing bills or receipts, and calculating bills would be the most important, with smaller numbers stressing self-discipline and correct behaviour or obedience.

Asked what they realistically expected their children might do when older, parents of never-enrolled children named a range of possible jobs but the most common, especially for girls, was that they would work in the garments industry. Never-enrolled girls were also commonly expected to become housewives, while boys were expected to work in small businesses and as day labourers. (Notably, no parents mentioned rickshaw-pulling, reflecting the particularly low status of this job.) Some of these parents foresaw that there might be difficulty getting these jobs, citing the need for more education as the single largest reason. Parents were also asked what they would *like*, as opposed to expect, their child to do. In about a third of cases wishes and expectations diverged, for instance wishing that their children could work as car drivers, NGO officers, or in small businesses instead of as day labourers, transport workers or in factories.

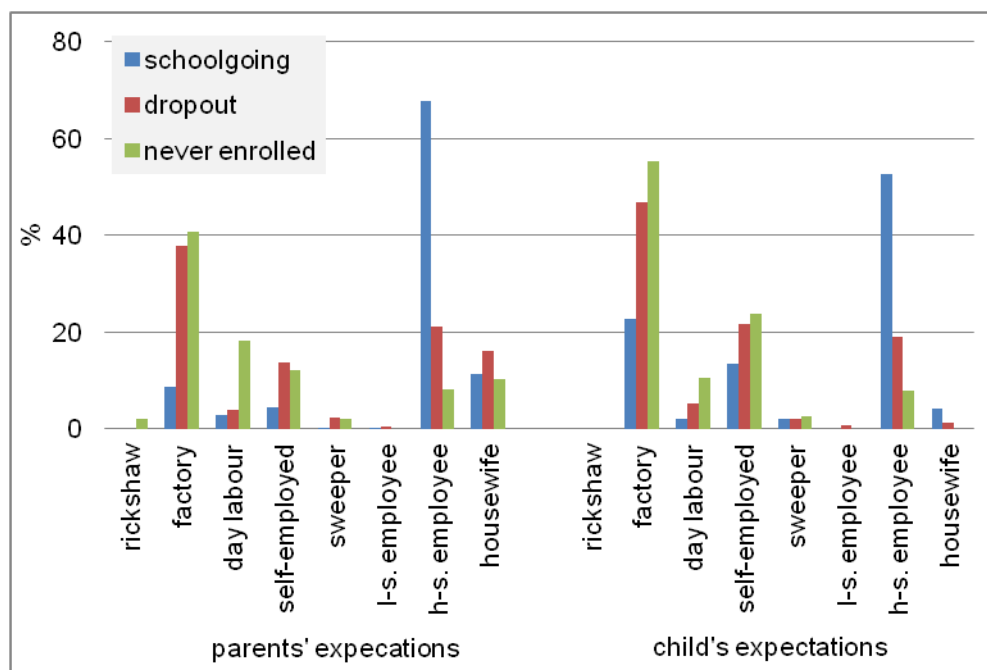
For 11-15 year olds who had dropped out, 53% of girls and 18% of boys were expected to work in the garments industry, 23% of boys (and 1% of girls) were expected to go into small businesses, and 29% of girls were expected to become housewives. More than half feared that these expectations might not be fulfilled, the main reason being that more education would be needed to get a job.

For 11-15 year olds who were in secondary school, 46% of boys and 42% of girls were expected to become “executives” or “officers” in companies (i.e., to take white-collar office jobs in the private sector). 20% of boys and 21% of girls were expected to get jobs in NGOs. 16% of girls were expected to become housewives. 73% of parents thought there were reasons they might not achieve this expectation, however, and in this case the main reason was not lack of education but the need for connections to get jobs, followed by high competition for jobs.

Grouping jobs into ten categories (see Chapter 5 and Appendix 3) we can see how parents' and children's expectations differ and depend on school status (Figure 25). Most parents of school-going children said they expected them to become employees in companies or NGOs. Smaller numbers chose other relatively high status professions such as doctor, teacher, or government officer (civil servant). School-going children themselves were more evenly split between expecting to become high status employees and factory workers. Judging by the actual employment of both adolescents and household heads in our sample, the children's expectations seem more realistic. Possibly parents' expressions of their expectations were influenced by the desire to convey pride in their children or to avoid losing face, even though the question emphasized realistic expectations rather than hopes, aspirations or desires. Children themselves in most cases would have known other adolescents working in garments factories, making the category more salient to them, and may also have realized the potential for young workers to gain financial independence quickly through this route – an outcome that might be less valued by their parents.

Amongst never-enrolled children, the expectation (of both parents and children) was that they would become factory workers, usually in the garments industry, or enter self-employed occupations such as small businesses. For children who dropped out, expectations were in between those of school-going and never-enrolled children; some (around 20%) were still expected to enter high status employment, but most were expected to go into factory work (around 40%) or self-employment (around 20%).

Figure 25. Children's and parents' expectations of what children (11-15) would do when older



The pattern of expectations differed markedly by school type. For children who had never enrolled, the most common expectation was that they would become factory workers, with smaller numbers expecting their children to become day labourers, or self-employed. Most of the children in secondary school, and all of the children in kindergarten, were expected by their parents to enter high status employment. Children who (at age 11-15) were still in a government primary school or NGO, were expected to become factory workers or high status employees in roughly equal numbers; minorities were also expected to become housewives or self-employed.

Parents and children affirmed in interviews that for many types of “good job” a high level of education is needed. Government jobs, including working for the police, were seen as requiring SSC at the very minimum. Working for a business was seen as necessitating at least literacy and the ability to make accounts, if not a particular qualification level; for higher level jobs, business-stream HSC or BA qualifications would be needed. For working in garments factories, training was seen as more important than schooling, but to reach supervisory or managerial posts at least an SSC was required. Teaching, nursing, engineering and medicine were acknowledged as requiring degrees.

“Good jobs” were jobs valued not just for their higher salaries, but for other advantages such as better job security, working conditions, and pensions. Secure higher pay was valued not just in terms of individual consumption but for enabling one to leave the slum and live somewhere better, and for children to be able to provide well for their parents as they get older, and eventually for their own children.

Parents and children rarely tried to explain what aspects of the content of education were useful in work, focusing instead on the need for qualifications. In some cases, the ability to read, learn names of things, and keep accounts were cited as useful skills, in accounts that often emphasized the mysterious nature of the literate world to the illiterate:

To work with a large garage I need to learn many machines’ names, whose pronunciation is very difficult, so it will be a problem for me to pronounce those words.
– boy, 12, who dropped out from grade 1 of a GPS, Begunbari

Right now at least I can write my own name and read some. If I couldn’t do this much I would have felt worse. ... At work... I understand calculations better than others and I will be able to help my younger brothers and sisters.... If I want to work in a big store I have to memorize the name of all the products of the store. And I need education to know the name of the small parts of the store. If I work at a pharmacy I need to know the name of the medicines.
– boy, 14, who dropped out from grade 5 of an NGO school, Cholontika

Asked directly to name the most important benefit, in terms of work or livelihoods, of education, parents most often named calculating bills or change, followed by reading

instructions and writing bills or receipts. Clearly, these uses of numeracy and literacy were visible and understandable to parents living in slums, even if they are not able to read, write, or perform written calculations themselves. Self-discipline and correct behaviour were named by smaller minorities, though learning to behave well came up several times in interviews (see below).

As well as requiring a level of education that could only be reached by a minority in our sample, there were other barriers to getting good jobs, including bribes and a need for social connections, reflecting the findings of earlier studies (Opel, 2000; SCUK, 2005).

Now it is impossible for him to get a good job or to be a government employee. ... To be a government employee, higher education is needed. He doesn't have this. Besides, in these cases you have to have a link with the upper level, which we don't have.
– father of boy, 11, who dropped out from grade 1 of GPS, Korail

If you want a good job, bribe or power is needed. If you don't have any of these then you have to face many obstacles.
– father of girl, 12, Korail

Respondents also pointed out that they needed some education even to look for a job in newspapers.

7.3. How do the benefits increase with the amount of education?

Given that only 25% of the 14- to 15- year olds in our sample were both in school and at a roughly appropriate grade (grade 8, 9, or 10), jobs requiring SSC would have been available to a minority – and most of these were concentrated in the Lalbag study area. What were the prospects for the rest, and to what extent would they benefit from their education?

A central point here is that there were a number of back-up options for children unable to complete education. Chief among these was the garment industry. As noted above, a substantial portion of non-enrolled teenagers were already working in the garments industry, and it was also the largest sector that parents and children expected non-enrolled teenagers to end up in. Education would, according to interviewees, be needed for better-paid jobs within the garment industry, such as supervisor roles. But for lower level roles little education is needed. The garment industry is divided into several layers, from the large foreign-run factories at one end, to the other end that merges with the informal sector (Kabeer and Mahmud, 2004; see Box 4 on p. 75 above). In the smaller and more informal companies there is likely to be particularly little scope for advancing a career on the basis of education. As noted by Kabeer (2004), women tend to work in these industries for a few years before their domestic responsibilities push them towards more flexible work.

In the Lalbag study area, many parents worked as sweepers, yet the greater wealth and better school availability in this slum meant that they nearly always had higher aspirations for their children. There were some exceptions to this, though, and passing the job of sweeper down to one's children represented a fall-back option in the same way that working in a garments factory did for other families:

I will give my job to my child. I'll marry her off to one of my neighbour's sons. My daughter will be an ideal housewife in future. As my daughter is not educated, she will not be able to do any other good job. Besides, we are cleaners, so people look down upon us. So, I will marry her off to a family of the same class as ours.

– *father of girl, Lalbag*

Was education nevertheless helpful in finding better-paid work at levels below SSC? There were mixed views about this in the interviews:

The little study that he did won't help him.

– *father of boy, 15, who dropped out from GPS, Lalbag*

Do you think if you had dropped out from school earlier, your life would have been different?

Yes. Now I can keep the accounts in a shop but, if I had dropped out earlier, that wouldn't be possible.

– *boy, 15, who dropped out from GPS, Lalbag*

In some cases, children's accounts confusingly indicated that both *more* education and *less* would have been better than the small amount actually amassed:

If I studied more my life would have been different. If I could pass at least the SSC examinations, I would have been able to be a supervisor or line chief or production manager in garments. ... Yes, it would be better, if I had stopped studying earlier. As I work in garments, if I joined earlier, I could have been a machine operator [by now]. My future life will be affected by the education that I have got. I will not be able to get promotion because of my lower education.

– *girl, 14, who dropped out from grade 5 of an NGO school, Korail*

If she passed the SSC examination she would have been able to get a government job. It would be possible to get honour from society. It would be possible to earn lots of money. It would be possible to live in some better place. There would be no need in the family. It would be possible to take care of her younger sister and brother. ... It wouldn't have brought any difference to her life if she had dropped out earlier. ... She cannot get a better job than this one, cannot even get promotion in this job

– *interviewer's notes on girl, 14, who dropped out from grade 9 of a private secondary school*

Though there may be many incentives at work here, the ambivalence in such answers highlights a tension between two types of incentive in particular, that work in opposite directions:

1. Starting work young means one can reach a higher level of salary by a given age by learning on the job.
2. Staying at school longer means one has better chances of promotion throughout one's career.

The first type of incentive focuses on the shorter term; in the longer term, the incentive to get more education and more promotion is likely to outweigh the initial advantage that might be gained by dropping out of school early to start learning a job. In particular, there are the middle management roles that are simply closed to people with less than secondary education, no matter how much experience they get. On the other hand, young people who are unable to reach the end of secondary education may prefer to drop out as soon as possible, in order to get more quickly to the peak of their more limited career paths. Moreover, the urgent demands of extreme poverty in the household will in some cases give much more weight to the shorter term type of incentive; the strain on current resources is too great to invest some in improving future livelihoods.

7.4. Becoming a real person

Parents' and children's responses made clear that there were advantages to having an education that went beyond the (doubtful) financial rewards in the labour market. Education was seen as having direct practical benefits in terms of managing a household. Asked what were the most important benefits outside of work, parents in roughly equal numbers said avoiding being cheated when buying or selling; reading news or books; understanding contracts and official documents; and household budgeting.

But (also in roughly equal numbers) they cited being respected in the community (especially for boys); and being respected by a future spouse (especially for girls). Education was valued in terms of making the child into a "real person", a respected member of the community able to interact with others without shame. This outcome was valued in its own right, but the responses also made clear that it would have an instrumental value, increasing the child's ability to run a household successfully when he or she grew up, and giving them better access to services such as education and healthcare. In this section I examine what parents' and children's interview responses have to say about this, while in the following section I examine how education was seen as beneficial for a child's future in family life and as a husband or wife.

Schools were seen as inculcating a range of characteristics that added up to building a child into a "real", respected person, who behaves appropriately and morally, and can interact with others confidently at different levels of society. Being respected in the community was the non-work

benefit most commonly cited by parents – it was given as the main benefit for 37% of boys and 20% of girls.

Everybody respects an educated person. I can help other school-going children in their studies and many more things where education helps.

– *boy, 15, who dropped out of GPS, Lalbag*

Everyone respects an educated person. An educated person can talk properly; he can get good behaviour from others. He can buy things without facing bluff.

– *mother of boy, 14, at grade 6 in a community school, Begunbari*

Perhaps connected to the ability of educated individuals to garner respect in the community and by spouses, was the role attributed to schools in building correct behaviour. As noted above, only a minority of parents saw this as important for work. But learning to behave in a disciplined, self-controlling, way, and to distinguish right from wrong, came up frequently during interviews.

School is the workshop where a real man is made. Besides studies, various rules and behaviours are taught in a school. ... It is impossible for us to do a job because, we are illiterate. If I had been able to make my son a literate person, people would have said that now he is a real man.

– *father of boy, 15, who dropped out from GPS, Lalbag*

School is the factory that makes humanity. From there a man learns lessons for the future.

– *father of boy, 12, in grade 6 at a private secondary school, Korail*

School make one's future. It teaches how to be a real human, how to be established. It makes one self-confident.

– *father of girl, 15, who dropped out from grade 9 at an NGO school, Lalbag*

I think man first learns right or wrong in his home. After that other good advice and orders are given by the school. Courtesy, honesty, good character are taught at school.

– *father of girl, 15, who dropped out from grade 6 of private secondary school, Cholonika*

... at least I know right and wrong. I will understand good or bad before doing anything. I can take right decisions. And if I don't understand something I will try to understand from someone more educated. In this way it has made a difference.

– *girl, 15, who dropped out from grade 6 of private secondary school, Cholonika*

The ability to learn good behaviour, how to distinguish good and bad actions and people, in school, came in sharp contrast to parents' and children's descriptions of the slum, where children were subjected to bad influences and parents were unable to control their behaviour or choices, and to their descriptions of illiteracy as making one "equal to the devil", unable to do a good job or to "know anything properly".

While it is difficult as a non-Bangla speaker to be certain of the precise cultural meanings attached to this type of language as it appeared in the translated interview transcripts (see section 4.2.7), the respondents appeared to be describing an idealistic vision similar to that of schooling for a “beautiful life” set out in SCUK (2005), which argues that the social benefits of education are seen as more important than any financial pay-offs. However, the responses also pointed to ways in which the behaviours and characteristics learnt in school would have instrumental value as well as being valued in their own right. The good behaviour perceived to be a property of educated children would allow the child to interact confidently with people in different circumstances, overcoming some of the stigma attached to coming from the slum:

[If he had stayed longer in education] He would be able to behave with people in different circumstances ...

– *father of boy, 11, who dropped out from grade 1 at GPS, Korail*

... an educated person can mix with any one easily.

– *boy, 14, in grade 6 at a private secondary school, Begunbari*

An educated person can communicate with people properly.

– *mother of girl, 14, who dropped out from grade 9 at a private secondary school, Begunbari*

Education is needed to talk with and mix with good people.

– *mother of girl, 11, never enrolled, Cholutika*

Do you think that, if you went to school regularly, your life would have been different?

Yes, if I went to school, I would have been able to read, write, understand and even try for a job. Now I hesitate to do anything and remain inside the home.

– *girl, 15, never enrolled, Lalbag*

Being able to interact with different levels of society without shame is important for many reasons, including for gaining access to education for the next generation. In one household consisting of seven brothers and sisters who had come to Dhaka independently, the elder sister felt that she could have got her younger sister admitted to school if she had been literate herself. As it was neither their parents nor any of the siblings had ever been to school.

Similarly, this ability to interact could become life-saving when it comes to accessing healthcare services or dealing with similar emergencies.

No one can con an educated person and they understand good and bad. And during a crisis like when someone gets sick an educated person will know what to do or where to take them

– *father of boy, 14, who dropped out from grade 5 of an NGO school, Cholutika*

If any trouble occurs, I won't be able to make a phone call and ask for help because I am uneducated. Education would have got rid of this problem. As Father is old and sick we have to take him to the doctor sometimes along with an educated person. If I was

educated we never would have asked for someone else's presence on this matter.
 – *girl, 13, never enrolled, Cholonika*

These examples show that the use of education to deal with health problems was partly, but not entirely, a matter of knowledge. In the second example, an educated person was seen as a necessity simply to interact with the doctor, rather than it being seen as the doctor's responsibility to interact with patients on a level they can understand. This should be put in the context of the plurality of health providers in Bangladesh, not all of whom are equally trusted. An educated person, whom "no one can con," would be needed to distinguish the reliable ones and act as an intermediary. But it is also a potent example of education as cultural capital. An educated person can "talk properly" and "get good behaviour from others" (in the words of one of the respondents quoted earlier). Embodied in ways of presenting oneself, self-assurance, and so on, or institutionalized in formal qualifications (Morrow, 1999; see section 2.1.5), education is the key to having one's rights recognized among the professional classes in government, education and health services.

Education was also connected explicitly to the ability to work and accumulate wealth in the following case:

[W]e don't have a lot of money and no connections. Our son didn't study far. Maybe when he gets a small store the crooks will ask him for a lot of money and when he can't pay they might beat him. – *father of boy, 14, Cholonika*

Taken at face value, it is hard to see how an education would prevent one from being robbed under threat of violence. The allusion here to connections suggests, though, that education forms part of a larger package of the well-connected, educated man with a secure livelihood, and who is respectable and able to go to the police or local politicians for help.

It would seem likely that this ability to interact at different levels is important for building social networks of the kind through which one could access other resources when they are needed. Whereas time, trust and reciprocity may be strained within the slum environment (Rakodi, 2002; Rashid, 2004) so that social connections are valuable only for small exchanges, social connections with people outside the slum would potentially yield more value in terms of the resources one can access, although this would depend on what types of relationship can be established as a result of being more highly educated, and in particular if schooling enables people from slums to achieve recognition as members of more powerful and wealthy networks or groups. The extent to which this really happened was difficult to gauge from participants' responses.

In terms of the framework presented in Chapter 2, I had anticipated that the long term benefits of education, as perceived by parents, would be mainly those to be gained through higher wages

in labour markets. The foregoing discussion has shown that a much more diverse range of social and personal benefits are salient to parents and children. This may partly reflect their recognition that the labour market benefits are far from assured, leading them to focus on other rationales for their investment in education.

7.5. Gender, marriage, and preparation for bringing up children

As with becoming a “real person,” there was a similar ambiguity between instrumental and symbolic value of education when it came to marriageability and family life, an important consideration especially for girls. For both boys and girls, education was thought to be beneficial in terms of managing a family’s finances, looking after and teaching children, and protecting the family’s interests. For instance:

He will be able to write and read letters, to keep the financial records of the family and to teach his children.

– *father of boy, 11, who dropped out from grade 1 of GPS, Korail*

If parents are literate, their children become literate too.

– *father of boy, 15, who dropped out from GPS, Lalbag*

For girls, however, marriage was portrayed as inevitable and the benefits in terms of married and family life were particularly stressed in interviews. This is similar to Kabeer and Mahmud’s (2009) finding that while the value of education for sons was closely linked to occupational choices, for daughters it was more closely linked to their roles as wives and mothers. As noted by Jesmin and Salway (2000), the instability of life in the slum, harassment from men, and social and economic dependency, make marriage a necessity.

However, the interaction between education, marriage and work was not straightforward.

Education was seen as not necessary to be a good housewife, and yet acknowledged as useful in fulfilling this role better:

My child never went to school, so I don’t have any other desires. We will arrange her marriage after she is grown up. ... I couldn’t send her to school, so I don’t have any great hopes. We only want her to be a good housewife. ... She can’t even write her name. She will not be able to do any good job, so if she becomes a good wife everybody will love her in her husband’s house... if a woman can maintain her household properly, nothing else is needed. Because it is woman who brings happiness in a family. My child has this ability... she prays to God regularly, speaks very little. Her behaviour is very good. So I think she will be a good wife.

Besides work, are there ways in which education would have been helpful? To be an educated person is very good, she can then maintain her family, can keep accounts. She would then be able to teach her children.... She would be able to maintain her family properly if she was educated. Then her children would also be educated. She will be cheated everywhere if she can’t calculate or keep accounts. So, I think these things are

important.

– *mother of girl, 15, never enrolled, Lalbag*

In future, I'll find good husbands for them. They have to marry because they are female. ... If I find a good husband for her she will live a happy life. Many girls of the neighbourhood have married into good families and they are now happy. ... I can arrange her marriage to a good boy from a middle class family.

Besides work, are there ways in which education is helpful? Yes, education can help in other ways. Everybody will respect. She will be able to teach her children. She will be able to understand the mentality of her husband and take care of her child.

– *father of girl, 14, who dropped out from grade 5 of an NGO school, Korail*

For girls, unlike for boys, there was a substantial proportion of parents (18%) who said that being respected by a future spouse was the most important non-work benefit of education. Even where labour market benefits were stressed, parents often put these within the context of helping family life:

If she passes class 8 from [*name of NGO school*] they will give her training. I'll marry her off to a good boy after she does the job on which she will be given training. I wanted to build up my child as a good person. Even now I'm trying to lead her that way. I hoped that she will get a good job. If she gets a good job, she will be able to maintain her family properly and calculate the expenditures. ... She will be able to read addresses, to read letters and to take care of her children.

– *father of girl, 13, in grade 5 at NGO school, Lalbag*

A good education and a good job were also suggested by some to be prerequisites to a good marriage:

I want my daughter to pass the BA, do a good job and then I will marry her off to an established person. ... I hope she will be a government employee. ... If she can do a good job, our poverty will be removed. Everything will be fine if there is no poverty. I'll be able to give her in marriage to a good family. She will be able to raise her children.

– *father of girl in government secondary school, Korail*

I have hopes for my daughter. I will educate her as far I can. No matter how much poverty there is if she wishes I will let her pass BA then I will send her abroad where she will get a good job and help my family. She will marry an educated good boy and she will live happily. ...

– *father of girl, 14, at grade 7 in an NGO school, Cholontika*

Two slightly conflicting accounts emerge here. On the one hand, marriage is portrayed as a fall-back option for girls who are not able to complete schooling and get a good job. In such cases education was acknowledged as useful but not necessary. Amongst other interviewees, low-paid and uneducated work is the fall-back option; the desired option is a good education, leading to a formal-sector job, and then to marriage into a middle class family.

This conflict may reflect changing norms and perceptions with regard to what is expected of young women and the value assigned to their education. It may also reflect that some people living in slums maintain their links to rural areas, and perhaps at the same time cling to the values and perceptions prevalent in the village. Others, especially those who are not recent migrants, try to adopt the outlook of the Dhaka middle class, although it will be difficult for them to do so fully, because of the lack of security for girls and young women living in slums, and because, with or without an education, they do not have easy access to good jobs. Whereas studies in rural Bangladesh found some benefits of education were inadmissible for females – such as using it for household budgeting (Maddox, 2005) or individual benefits to girls themselves (Raynor, 2005) – in the present study, a wide range of such benefits – including individual pleasure, work, budgeting, and raising children – were discussed openly by parents and children.

What level of education was needed to access these benefits? While completion of secondary school would have been needed to access most of the formal sector jobs that were some parents' aspirations, lower levels of education were still seen as beneficial for managing the household and progressing even in informal jobs:

Do you think if you had dropped out from school earlier, your life would have been different? Yes... Now I can teach children at home and can keep account. It wouldn't be possible otherwise. ...

— Do you think the little education that you have will help you in future?

Yes, of course. If I were educated I may have been able to marry into a good family. Now I think to do embroidery and in the future make it larger. ... Then the education will help me. ... As I am educated to some extent, I can understand my own good, keep accounts and teach children. I won't have to face any problem when I go anywhere. I can do many social activities.

— girl, 15, who dropped out from grade 9 at an NGO school, Lalbag

7.6. Pleasure and pride: immediate benefits of school

As well as helping to achieve some longer term aspirations, parents' sense of pride and children's pleasure were immediate benefits that helped to offset the immediate costs and effort of keeping a child in school. Parents expressed pride in seeing their children go to school, provided that they behaved well and attended regularly, and this pride was sometimes linked to the expectation of longer term advantage:

I feel good when my son reads books, rising early from sleep. When they go to school together, I like that. There is no complaint against him in the school, I like this most.

— mother of boy, 15, in grade 11 at private secondary school, Lalbag

Around me I see parents feel proud by educating their daughters. The girls help their parents and they feel a little peace. They get their daughters married well.

– *father of girl, 14, in grade 7 in an NGO school, Cholutika*

When asked what they liked about school, most children stressed that they enjoyed it, and their responses focused on playing and talking with friends, physical education, singing, and positive relationships with teachers:

I liked gossiping with my friends, playing together and going to school in groups.

– *boy, 15, who dropped out from GPS, Lalbag*

I liked studying ever since I enrolled in school. I liked to mix, to talk and to play with everyone. I really liked when we did physical training before school started and we sang our national anthem. I liked going out with everyone when school ended.

– *girl, 15, who dropped out from grade 6 of a private secondary school, Cholutika*

When our teacher would ask us one by one how we were I used to like it a lot. Like one day when I went to school without eating she called me close, put her hand on my head, and ask me what was wrong. I would never forget that.

– *boy, 14, who dropped out from grade 5 of an NGO school, Cholutika*

All the teachers loved me very much. If I was absent one day they would ask about me.

– *girl, 14, in grade 7 at an NGO school, Cholutika*

I liked the Bangla teacher's reciting of poems, playing games, dancing, singing.

– *boy, 11, who dropped out from grade 1 at GPS, Korail*

Whereas parents often stressed the importance of education for girls' future family lives, girls themselves often focused more on education as a potential source of individual fulfilment or enjoyment. One never enrolled girl related this to her not enjoying the same freedoms as boys:

And another thing is I am a girl so sometimes I need to stay at home. On that time I could easily read some story books and pass my time rather than stay being quiet. To do those things you need education.

– *girl, 11, never enrolled, Cholutika*

For some girls, the alternative to schooling was the boredom of staying at home, having dropped out of school but not yet ready for marriage or work:

I would have passed SSC if I studied at school longer. Even if I did nothing else I could have helped my brothers and sisters in studies. I could have done tuitions. I wouldn't have to sit around. Life could have been different and better.

– *girl, 15, who dropped out from grade 6 of a private secondary school, Cholutika*

7.7. Expectations and reality

It is difficult to assess exactly how realistic these expectations are without full knowledge of the shape of labour markets in the near future in Bangladesh. However, in this section I compare

what children expected to do, what their parents expected them to do, and what household heads were currently doing for work. For this I limit the analysis to male heads of household and male children, because I only have occupational data for household heads, and the number of female household heads in the sample is too small for disaggregation.

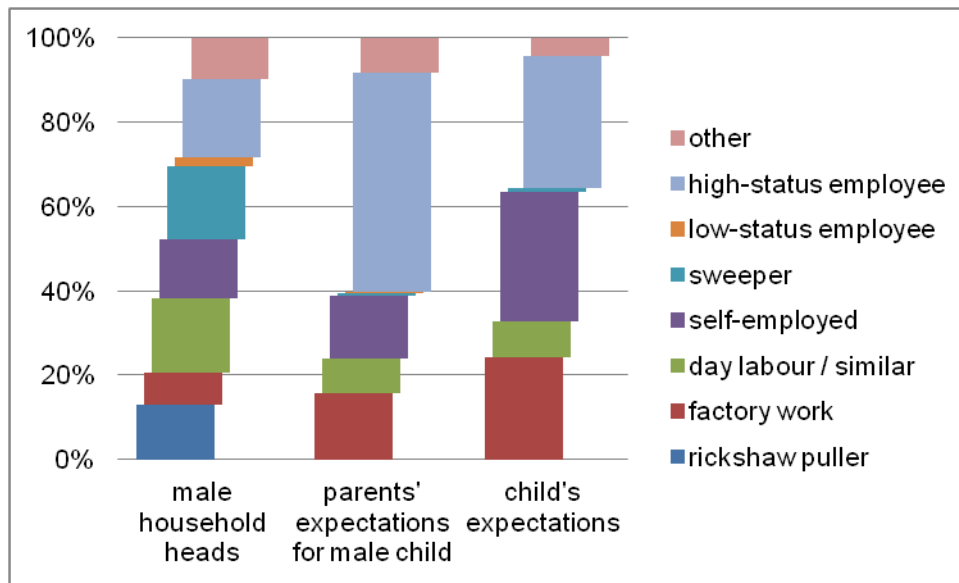
Notably, many heads of household were sweepers, rickshaw pullers, or day labourers. As discussed in Chapter 3, the literature on slums in Bangladesh is consistent in identifying these jobs, along with street vending and petty trading, as predominant male occupations. But there were very few cases of children being expected to take up these jobs. Although sweepers were among the better paid in our sample, and enjoyed relatively stable government employment, the job continued to carry a heavy stigma that can be traced back to its roots as a low-caste occupation in colonial India.

Instead, almost half of parents expected their children to become employees, though in many cases this meant relatively uneducated jobs such as car driver or office assistant. Around 10% expected their children to become health workers, teachers, or engineers, even though almost no heads of household were in these occupations. Boys often saw themselves becoming self-employed or factory workers, also rare categories among the heads of household. Girls overwhelmingly saw themselves becoming factory workers or high status employees.

These results suggest a degree of ambition amongst both parents and their children, and on the whole were not necessarily unrealistic, given that the children aged 11-15 already had higher educational levels than their parents in many cases. Parents either did not believe their children would enter into low-status jobs such as rickshaw puller or sweeper, or would not admit so during our survey. Even for the 10% of 11-15 year old boys who had never enrolled in school, and the 20% who dropped out before grade 5 of primary, parents saw them working in factories rather than in these low-status jobs.

Do these expectations seem realistic in light of what prior research says on Dhaka's labour markets? Parents' and children's expectations recognized the ways that Bangladesh's globalizing and expanding economy is creating new jobs in cities across the spectrum of educational levels, but may overstate the actual availability of jobs at the lower end of that spectrum, compared to the large numbers of competing new entrants to the labour market, and the security of such positions given the sector's vulnerability to changes in the global economy. Nevertheless, never-enrolled teenagers in our sample were able to find work in the garments industry, suggesting low barriers to entry. 23% of never-enrolled 11-15 year olds, and 32% of those who had dropped out, worked in garments factories, making it by far the largest sector for child employment in this survey.

Figure 26. Occupations of male heads of households, compared to expected occupation for male children



Note. Around 40% of children expected still to be students at 18; for this chart I focus on the 60% who expected to be working at 18.

In the interviews there were several cases of parents of school-going children expecting their children to become doctors or engineers. Given the lengthy higher education required for these professions, these were extremely ambitious aims, but not necessarily impossible. While some parents and children were not able to offer much concrete detail on how they would achieve these goals, others did have detailed strategies, sometimes formed through a process of revising expectations downwards. In one case, the parents said that they intended for their son to go abroad after finishing secondary education, and to keep their (younger) daughter in school with the money he would send back, including higher education. This plan failed when their son first attended irregularly, then dropped out of school. In a couple of cases, the ability of secondary-educated young people to raise money through offering private tuition to younger children, was mentioned as a way of continuing through higher education.

If I could have studied a little more I would have passed SSC and then I could have tutored my way through college and after studying a bit more I would have been able to get a job. This is how my life would have been different.

– boy, 14, who dropped out from grade 5 of NGO school, Cholonika

One household showed both high ambitions and a willingness to revise them downwards as they learned more about the educational environment:

When I was young I thought that I would become a doctor. But it takes a lot of money to study medicine. My family can't afford that. ... Now I am thinking of going into business after finishing my studies. Because you can't earn good money without doing business. ... [T]o study medicine it will take a lot of money, which my father can't

afford. Besides it is very tough to get admitted to a medical college. There is a lot of competition... And we don't have any acquaintances in the upper level to help us in this matter. Besides, as my father already has a small business, I want to do something bigger based on this. That's why I have changed my decision.

– boy, 14, at grade 9 in private secondary school, Cholonika

This respondent was working as a private tutor to younger children. In general, there was a large market for private tuition in the slums (see Chapter 5), and a relative lack of well-educated people in the area to provide this service, suggesting that this could be a good strategy for earning money to fund the costs of further education. Offering private tuition could then be both a benefit of education (of secondary level or higher), and part of a strategy for reaching higher levels of education – and the better job opportunities afterwards – that would otherwise be out of reach. Time constraints might prevent many students from taking up this strategy, though: as Chapter 5 showed, students in the upper grades of secondary school spent increasingly long hours in school or studying at home, and a minority spent substantial amounts of time doing domestic work.

It was not clear from the interviews to what extent participants took into account the health risks associated with different jobs. Girls contemplating starting work in garments factories were sometimes influenced by peers of a similar age, or by parents who had not themselves worked in the garments industry, rather than by the older generation of garment workers, who might have been better placed to advise on the longer term health hazards of factory work (Davis, 2011; Kabeer, 2004). Garment work is not unique in this regard, however; the urban poor undertake many forms of physically demanding work that eventually take a toll on health (e.g. Begum and Sen, 2005, on rickshaw-pulling), leading to long term medical costs and lower incomes as productivity declines with age and poor health.

A few of the respondents mentioned migrating abroad as a way of finding better work. Large numbers of Bangladeshis migrate to work abroad, mostly to the middle east or to Singapore, Malaysia, or the Republic of Korea, and emigrants predominantly have low levels of education and do unskilled work (Siddiqui, 2005). Siddiqui describes the pitfalls in this process: Obtaining a visa through the regular channels has become increasingly difficult; the officials who are supposed to distribute them sell them to informal recruitment agents, and recruitment is carried out informally without written receipts. The potential for fraud is high and many aspiring migrants lose their money. For those who do manage to migrate, lack of adequate documentation can later land them in trouble. Many experience irregular payment of wages and unpaid overtime. Employers sometimes withhold their documentation, including passports, making it difficult to assert labour rights.

In the present study, the few parents and children who talked about migrating did not mention any of these issues, even though they were asked if there were any obstacles that might prevent them from achieving their aims. Perhaps they were aware of these issues but knew ways to overcome them. People in the study had relatives and neighbours who had migrated successfully, and so must have had at least some awareness of the risks and benefits of international migration.

7.8. Summary and conclusion

This chapter has explored what parents and children see as the benefits of education, and also made some attempt to assess how realistic their perceptions are. Parents and children do not have perfect knowledge of future labour markets or of how useful education will be in them. A picture emerged whereby high levels of education – secondary completion or beyond – could help get (but not guarantee) a well-paid, preferably formal sector job. Opel (2000) finds that education has limited implications for entry into the labour market but plays a larger role in progression to higher positions within a particular industry, and sometimes also in transitions between the formal and informal sector. The results presented here paint a slightly different picture: education is both the key to higher professions for a minority, and the key to progression within some industries for the rest, especially in the garments industry.

Those who never enrolled or got only a few years of primary school could still get jobs in the garment industry or elsewhere in the informal sector, although some had higher aspirations that would probably have been difficult to fulfil.

But for the large group that would leave school with intermediate levels of education – stopping towards the end of primary or the beginning of secondary – things were a bit less clear. Their education, which in most cases would have imparted little more than basic literacy and numeracy, would certainly be better than nothing but responses were ambiguous as to whether this would help gain a better job or advance within a job.

Similarly, participants in the study recognized the importance of education beyond labour market returns. Children – at least in some cases – enjoyed going to school and parents took pride in seeing them go. Education was highly valued for making a child into a ‘real person’ – inculcating behaviours and social ease that would enable them to interact with people at different levels in society, without shame or fear of being cheated. Through both this symbolic value of education, and the more directly instrumental uses of literacy and numeracy, education could also help girls marry, though there was some variation in responses over how necessary it was for girls’ future lives as wives and mothers.

The following chapter weighs up how these expectations surrounding education, as well as the amount of resources needed to reach a given level of education, feed into decisions about education.

Chapter 8. The decision

In this chapter I ask how real and perceived costs and benefits of education come together to influence or determine decisions about a child's education.

To put the following results in context, I first use the survey data to present some aggregate statistics on educational outcomes in the study areas (Table 27). Net enrolment rates at primary level – the proportion of 6-10 year olds in grades 1-5 – were 65% for boys and 75% for girls. The CREATE survey conducted in six poor rural areas (Hossain et al., 2009; see section 4.2.3) provides a rural comparison point for the urban slum results. Net primary enrolments were 13 percentage points lower in the slums studied than in the rural areas, and there was also a larger gender gap. Korail and Begunbari slums had particularly low enrolments – lower even than the worst-off rural study areas. There were similar disparities by wealth quintile; only 61% of the poorest quintile were enrolled, compared to 79% of the richest.

At secondary level, net enrolment rates (proportion of 11-15 year olds in grades 6-10) were extremely low in the urban study areas – 22% for boys and 33% for girls²². This was roughly half the level of the rural study areas. Net secondary enrolment was relatively high in the Lalbag slum (50%) but no higher than 20% in any of the others. Wealth disparities at secondary level are huge: the enrolment rate is 6% from the poorest quintile but 56% from the richest quintile. For boys, fewer than half were going to secondary school even in the richest quintile.

Table 27. Education characteristics of the study areas

	Cholontika	Korail	Lalbag	Begunbari	poorest quintile	richest quintile	overall	rural comparison
Net primary enrolment – overall	77%	57%	84%	59%	61%	79%	70%	83%
– male	66%	52%	87%	53%	53%	76%	65%	80%
– female	88%	62%	81%	65%	69%	83%	75%	85%
Net secondary enrolment – overall	14%	15%	50%	20%	6%	56%	28%	54%
– male	5%	15%	40%	18%	5%	46%	22%	46%
– female	22%	14%	57%	21%	7%	65%	33%	62%

Note: poorest and richest quintiles are based on AII (see Appendix 2). Rural comparison is from the CREATE rural study areas (Hossain et al., 2009; see section 4.2.3)

²² As noted previously, there are an anomalously low number of 13-15 year olds in the sample. If this is because they have left home (and left school) to work, then the real secondary enrolment rates would be lower.

In the rest of this chapter I separate out several key decision points and focus on them in turn, following the decision model from section 2.4 and Figure 2: first, the decision around age 6 to enrol the child at the correct age for starting primary school; second, the decision at older ages, to enrol the child overage or not at all²³; third, how much a household decides to spend on each child's education; fourth, the closely related decision of which type of school to enrol a child in; and fifth, the series of decisions to stay in school or drop out. At each of these points, I examine how the household and individual characteristics differ for households that made the decision one way compared to those that made it differently, and explore what the survey and interviews can tell us about how the decision was made. Sixth, I examine a summary measure of the outcomes of all of these decisions – grade attainment in school. I end by considering the role of aspirations and expectations in the decision process.

Each decision point can be seen as a point where resources are invested or withheld, or are simply not available. While I use the word decision to describe these points throughout, it is important to remember that the individuals involved – parents and children – may be faced with a range of viable, realistic options to choose from, or may be entirely constrained by their circumstances. The implications for the child's education of each decision may be temporary – as in delaying enrolment at a young age – or permanent – as in withdrawing a girl from school to get her married. Different amounts and types of resource may be important in each case. For regression analysis, the particular resources I consider in each case are: wealth, as represented by asset index quintile; parents' ability to support the child's learning, represented by the education of the highest-educated parent and whether the household is female-headed; the child's health status and height for age, which influence his or her physical ability to attend school and learn; the household's ability to mobilize resources socially, represented by a set of dummies concerning their social connections; and the endowment of schools and other public resources, represented by dummies for each slum area. I also include the number of children in the household, since the household's resources will have to be shared among its children (see section 2.4.3). (Full descriptions of the variables are in Appendix 4). I hypothesise that each of these will be significant, and that generally more resources will be associated with better education, but expect variation in which resources are significant at different decision points. In each case I also check for gender differences, which may exist because the resources needed for education differ between boys and girls, or because the expected benefits differ.

²³ In practice, I first look jointly, using multinomial logistic regression, at the decision to enrol a child on time, overage, or not at all for 6-10 year olds. I then look separately at whether or not 11-15 year olds have ever enrolled. This may seem counter-intuitive as a way of dividing up the decisions, but the reason for it is that we need to look at different age groups for evidence of the different decision points. 11-15 year olds are the relevant age group for examining the group of children who *have never enrolled and likely never will*; 6-10 year olds who were not yet enrolled at the time of the survey might still enrol later.

In reality these decision points may be better seen as processes rather than discrete events (Hunt, 2008; see section 2.4). Treating them as discrete events is one way to disentangle the complexity of these processes and makes them easier to cover in survey instruments. But by drawing on other parts of the survey, for instance those asking about reasons, or about attendance prior to drop-out, and by drawing on the qualitative results, this chapter also aims to give some sense of the underlying process and the multiple events that could have precipitated an outcome such as never enrolling or dropping out.

8.1. Enrolling at the right age

Children in Bangladesh are supposed to enrol in primary school at age 6. But in the sample only 60% of 6-year olds and 76% of 7-year olds were reportedly going to school (Figure 27). When parents were asked about what age children (currently or formerly in school) started primary school, only 47% said they started at age 6 or below (Table 27). (The discrepancy in proportions may be due to recall errors, children who had turned 6 since the start of the school year, parents being reluctant to admit they enrolled their children late, or uncertainty over children's ages.) Some 63% of school-going children were not in the right grade for their age, and for 70% of these the reported reason was that they enrolled late.

Figure 27. enrolment status by age

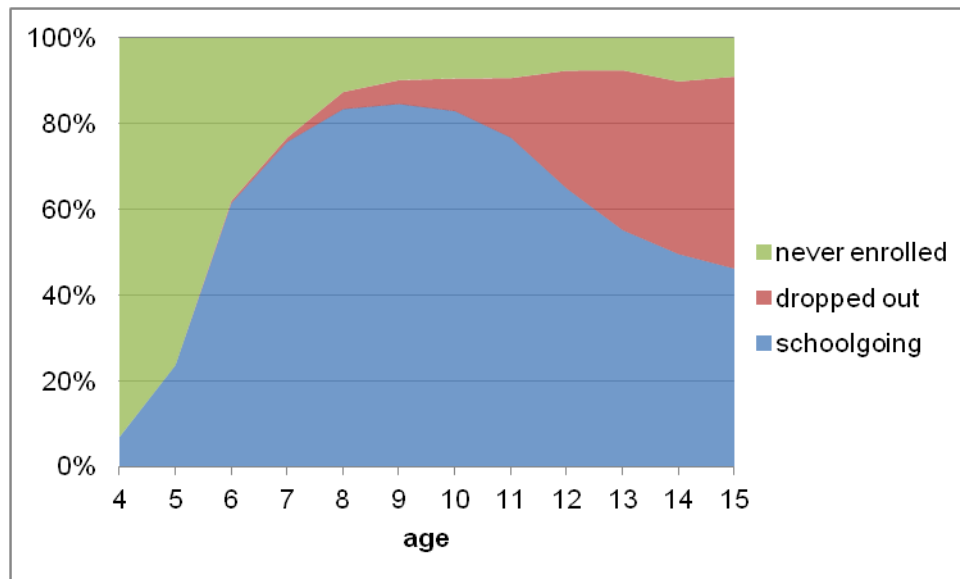


Table 28. Reported age of starting primary school, for school-going children

Starting age	average	wealth quintile		male	female
		poorest	richest		
4 years (%)	0.7	0.0	1.4	0.3	0.8
5	5.5	2.4	7.7	5.0	6.0
6	38.2	32.7	46.7	38.7	41.8
7	24.0	24.1	21.7	24.1	22.5
8	16.5	22.4	12.0	16.0	14.4
9	8.0	10.5	6.3	8.1	8.1
10	5.0	5.1	3.4	5.3	4.9
older	2.2	2.7	0.9	2.4	1.4
Total	100.0	100.0	100.0	100.0	100.0
<i>mean starting age (years)</i>	<i>7.0</i>	<i>7.3</i>	<i>6.7</i>	<i>7.1</i>	<i>7.0</i>

In order to explore what aspects of the household and child are correlated with enrolment at the ‘correct’ age, I use multinomial logistic regression with a dependent variable that has three outcomes: never enrolled; enrolled overage; and enrolled at the correct age (or underage), for 6 to 10 year olds (see Appendix 4). Table 29 shows the breakdown of this education status variable overall and for males, females, and the poorest and richest wealth quintiles. The proportion of overage enrolment is about the same (40%) in each sub-group. But the proportion never enrolled is much higher for the poorest than the richest, and higher for boys than girls. Correspondingly, the proportion enrolled at the right age is much higher for the richest and for girls than for the poorest or for boys, respectively.

Table 29. Education status of 6-10 year olds, by sex and wealth quintile

Status of 6-10 year olds (%)	average	wealth quintile		male	female
		poorest	richest		
never enrolled	20.5	31.9	6.3	24.6	16.1
enrolled, overage	39.9	40.8	40.3	39.3	40.5
enrolled, right age or underage	39.6	27.3	53.4	36.0	43.5
total	100.0	100.0	100.0	100.0	100.0

In the logistic regressions I use enrolment at the right age (or underage) as the baseline category and estimate the associations of different explanatory variables with the relative risk of being in

each of the other two categories rather than in the baseline category. The regressions confirm that boys are more likely than girls to be never-enrolled at this age, but there is no significant difference between the sexes in terms of overage enrolment. Children from wealthier households are more likely to be enrolled and more likely to be enrolled at the right age, compared to poorer households. More educated parents – particularly, more educated mothers – are significantly less likely never to have enrolled their children, but parents' education is not significant in explaining overage enrolment. Controlling for wealth, Korail and Begunbari have significantly higher never-enrolment than Lalbag and Cholongtika. Korail, Begunbari and Cholongtika all have significantly higher overage enrolment than Lalbag.

Children who are relatively tall for their age (compared to the sample median height for age) are less likely to be never-enrolled or enrolled overage. Children who are in good health are less likely never to have been enrolled. Having some or many friends, knowing a slum leader, and not being a recent migrant, are all associated with significantly lower probability of never-enrolment; having some or many friends or knowing a slum leader are also associated with significantly lower overage enrolment.

I test whether different models are warranted for girls and boys by including interaction terms between the child's sex and all of the other variables. These interaction terms are jointly significant, indicating that different models are indeed warranted. In particular, parents' education and the child's health are significant for never-enrolment of boys, but not of girls. However, the relatively small number of non-enrolled girls (64 aged 6-10) may partly explain the lack of significant coefficients. Boys with low height for their age are also more likely to be enrolled overage, but this is not the case for girls.

Table 30. Multinomial logistic results for enrolment at the right age (selected models)²⁴

Model	8.1.3		8.1.6		8.1.7 (male)		8.1.8 (female)	
	(N)	(O)	(N)	(O)	(N)	(O)	(N)	(O)
age	0.81	1.91 ***	0.69 ***	1.81 ***	0.81	1.87 ***	0.55 ***	1.90 ***
sex	0.50 †	0.78	0.44 **	0.84				
children aged 0 to 15	1.46 *	0.98	1.21 †	1.00	1.23	1.02	1.15	0.89
Q2 or Q3	0.68	0.63	0.63	0.88	0.34 *	0.49 †	1.41	1.85
Q4	0.44	0.47 †	0.38 **	0.50 **	0.42 †	1.04	0.49	0.20 ***
Q5	0.16 **	0.33 **	0.16 ***	0.58 *	0.17 **	0.52 †	0.14 **	0.61
parents' education	0.94	0.99	0.92 *	0.98	0.84 **	0.96	0.97	0.99
female headed	0.35 †	0.55	0.57	0.86	0.34 †	0.77	1.04	0.99
belong to an organization	1.39	1.69						
relatives in area	0.98	1.44						
relatives in Dhaka	1.17	1.29						
some/many friends	0.34 *	0.36 *						
know a leader	0.27 **	0.27 **						
recent migrant	2.21 *	1.17						
non-migrant	0.56	0.45						
Korail			4.04 ***	0.90	4.52 **	1.70	4.16 **	0.49 †
Lalbag			0.64	0.50 **	0.33 †	0.72	1.35	0.35 **
Begunbari			8.01 ***	1.30	9.71 ***	2.02 †	8.77 ***	1.02
good/very good health			0.50 **	0.88	0.43 *	0.65	0.52 †	1.07
height for age			0.49 ***	0.78 *	0.43 ***	0.70 *	0.52 ***	0.87
N	330		769		394		375	
Pseudo R ²	.227		.232		.252		.264	

Note: The reported results are relative risk ratios, showing the ratio of the probability of being non-enrolled (N) to that of being enrolled at the right age, and the ratio of the probability of being enrolled overage (O) to that of being enrolled at the right age, respectively. The age group is 6-10. See Appendix 8.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

In summary, these results are consistent with the household's financial status, as measured by its assets, having an important impact on whether the child enrolls at the correct age. In

²⁴ Here and throughout this chapter I report only selected models; full results are in Appendix 4. Models were selected by a process of progressively adding groups of variables, and keeping those which improved the explanatory power of the model, judged using a combination of the significance of the coefficients on explanatory variables, R² statistics for linear regressions, and information criteria for logistic regressions.

interviews, too, parents stressed financial reasons for not enrolling a child at the correct age²⁵. However income is not significant in the regression analysis once assets are controlled for. Longer term financial status seems to be more important than current income. Parents' education is not significant for the decision enrolling *on time*, per se, but is important in determining whether a child, particularly a boy, has enrolled at all by age 10. Childhood health and nutrition appear to play a significant role in the process of enrolment at a young age, especially for boys. There is evidence consistent with parents accessing resources socially – through friends and contacts with local leaders, and through having settled in their area of residence for longer – that help them to enrol a child in school at the right age.

A child's physical size appears to be important for their school enrolment. For children aged 6 to 10 who had not (yet) been enrolled, 28% of parents said the reason was that they were 'too small', making this the most common reason. The regression results confirm that children in this age group with low height for their age were more likely to be kept out of school. Possibly parents use physical height rather than age as a guide to when a child is ready in school, holding back children whose growth has been stunted until they are the same size as other children in grade 1. Indeed, many parents do not know their children's exact ages, and so are forced to guess in this way. Children with low height for age may have other problems such as slower cognitive development or worse health that also impede them from entering school.

It remains to be explained why boys are less likely to be enrolled by age 10 than girls. Risk factors for non-enrolment – namely parents having low education or the child being in poor health or having lower height for age – seem to operate more strongly in the case of boys than girls. But differences in wealth effects between boys and girls were less apparent. The results are consistent with boys' education being valued less strongly than girls' among families with poor education and health status, perhaps because they are expected to enter manual work at an early age which will not require any education, while girls in this group are expected to enter jobs such as garment work, where basic education will be beneficial.

8.2. Not enrolling at all

As shown above (Figure 27), a minority of participants in the survey – 8.6% – are never-enrolled even at 11-15 years old. Whereas the previous section looked at those aged under 11, some of whom will later enrol if they are not currently enrolled, this section looks at never-enrolled 11-15 year olds, who are unlikely ever to enrol. In this age group, as with younger children, bivariate analysis shows that boys are more often never-enrolled than girls, and those

²⁵ Overage enrolment was unfortunately not among the issues precipitated when I designed the in-depth interview guide, and so I have little qualitative data to bring to bear here.

from the poorest wealth quintile are much more often never-enrolled than those from the richest (Table 31).

Table 31. Education status of 11-15 year olds

%	average	wealth quintile		male	female
		poorest	richest		
school-going	60.5	37.4	86.1	61.1	60.0
drop-out	30.9	47.2	12.1	28.7	33.0
never enrolled	8.6	15.4	1.7	10.2	7.0
total	100.0	100.0	100.0	100.0	100.0

Logistic regression results reveal that the difference between boys and girls is statistically significant. Age is not significant, confirming that once a child has reached 11, getting older does not increase his or her chances of enrolling in school. The richest wealth quintile are significantly more likely to have enrolled in school than the poorest, though other differences between wealth quintiles are not significant, and wealth effects disappear when dummy variables for each slum area are added. There are significant differences between slum areas: those in Lalbag are the most likely to have enrolled, those in Korail the least likely. Children of better educated parents are more likely to enrol; those from female-headed households are less likely to enrol. Current income is not significant, and nor is the child's health or height for age. Knowing a slum leader is associated with less never-enrolment; but a joint test for the social connection variables suggests that, taken together, they are not significant.

Table 32. Logistic regression results for never-enrolment (selected models)

Model	8.2.5	8.2.7
age	0.95	0.99
sex	1.71	1.23
children aged 0 to 15	0.83	0.89
Q2 or Q3	1.97	2.00
Q4	1.23	0.85
Q5	3.22 †	2.25
parents' education	1.34 **	1.31 **
female headed	0.19 ***	0.21 ***
Korail	0.30 **	0.29 *
Lalbag	2.16	1.17
Begunbari	0.38 *	0.41 †
PE: factory		4.73 **
PE: self-employed		5.22 *
PE: high status		28.76 ***
PE: housewife		8.68 **
PE: other		3.60
N	606	550
Pseudo R ²	.226	.296

Note: The results shown are the odds ratios of being never-enrolled, compared to being currently enrolled or enrolled in the past. PE = parents' expectations (baseline category is manual work). The age group is 11-15.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

In the chosen model²⁶ (Table 32, model 8.2.5), an extra grade of education for the highest-educated parent is associated with about a 30% improvement of the odds of a child enrolling. Compared to the baseline of Cholontika, those in Korail and Begunbari are about 60-70% less likely to enrol.

Adding parents' occupational expectations to the regression, children who are expected to go into manual employment are much more likely to be never-enrolled than other occupations,

²⁶ For the purposes of estimating the magnitude of association between different explanatory variables and the dependent variable, I choose the model with the best explanatory power as indicated by the R² statistic or (for logistic models) information criteria. However I avoid using models that contain parents' or children's expectations for this purpose, as these may confound results due to the process of revising expectations over time; coefficients may capture aspects of wealth or class that are not captured by other variables.

especially compared to those who are expected to go into high status employment²⁷. This may reflect occupational expectations adapting to the reality of whether or not a child has ever been to school, but it is also consistent with expectations having a causal effect on enrolment.

The qualitative evidence provides some richer detail on the processes behind these patterns. Up to the age of around 8, parents may still have the intention to enrol their children later. Beyond that age they have increasing difficulty getting their children accepted in school. Inability to afford school expenses is the main reason given by parents for never having enrolled a child aged 11-15. These expenses, and other barriers such as a dependence on child labour inputs, and not knowing the correct procedure for enrolling a child in school, lead to late enrolment and eventually non-enrolment, as the short window of opportunity passes:

I wished that I would get S--- admitted to primary school. But due to our condition it has not been possible yet. ... She can't learn any more. The time is over and she is all grown up. She feels ashamed to learn now.

– *sister of girl, 13, never enrolled, Cholontika*

At the same time, especially as they enter adolescence, parents and children find that there are employment options for children that could be used to improve the household's financial condition. Data from the interviews show how the temptation for children to enter employment is particularly strong for households in chronic poverty. For instance, the father of this household explains how they used to miss meals and had accrued substantial debt before he entered his children into employment:

Both my son and daughter work in garments factory. ... I wanted to make my daughter educated so that she can do a good job and eliminate poverty [in the family]. ... I didn't have the necessary money to make her highly educated. But I then hoped to make her educated according to my ability. It also became impossible, because suddenly my weaving stopped

– *father of girl, 13, never enrolled, Korail*

In response to a child growing older and continued hardship in the household, parents' and children's aspirations are revised downwards, from wanting a modest education, to accepting none at all. Younger children, especially girls, may be kept home initially to work in the household, and at a later age sent out to work for money:

I am a maid servant. I go to work at 7am and come back home at 5pm. After that I go to the market ... My daughter R--- does all the housework. R--- has to clean the rooms, wash the dishes. Near to 7 to 8 hours she needs to work. ... Next year I will send my

²⁷ 'High status employment' includes teachers, lecturers, health workers, government and NGO officers, and employment in a medium or large business. 'Manual work' includes rickshaw pulling, day labour, and street sweeper. See Appendix 3 for full definitions.

daughter to the garments. If R--- does a job that will help our family.
 – *mother of girl, 11, never enrolled, Cholonika*

In summary, the children who get the worst possible outcome for their education – those who have never enrolled and never will enrol – do so largely as the result of barriers that persist over a period of several years. These barriers may be poverty, the lack of an educated family member, or an inability to negotiate the bureaucracy of entering school. Although child labour outside the household is not particularly common in the sample, particularly at young ages, children's contributions of work and money can be crucial for the households that suffer most from chronic poverty, and in these cases delayed enrolment can easily turn into never-enrolment.

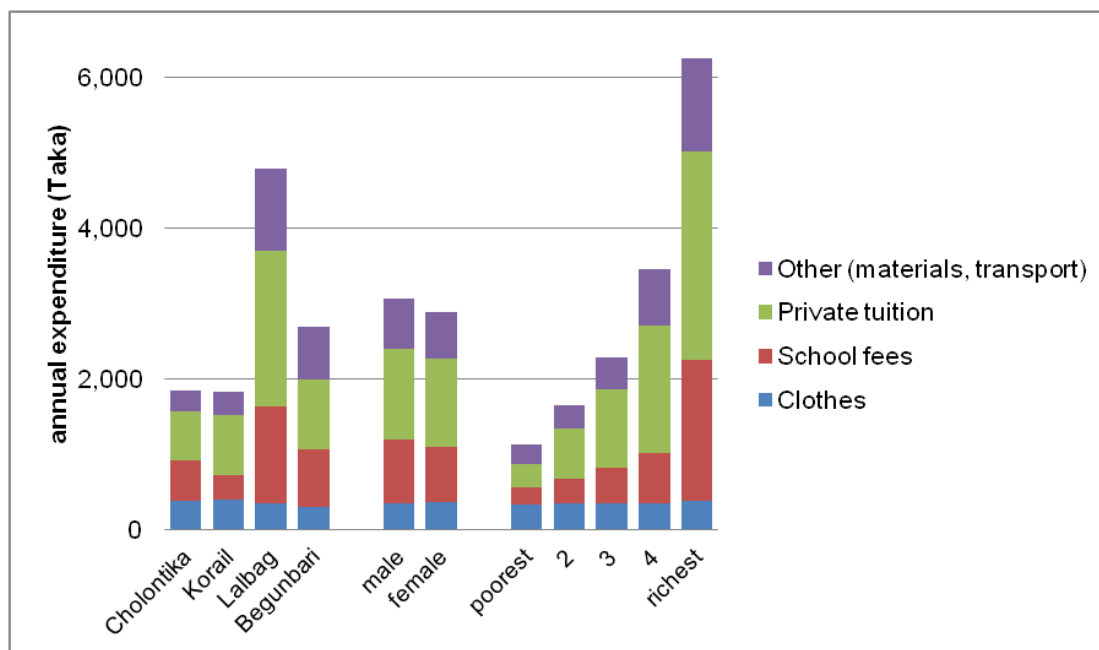
8.3. How much to spend

As seen in Chapter 6, expenditures on school often constituted a substantial part of household income, even at primary level, were much larger at secondary level, and varied greatly between school types. In this section I use regression analysis to examine how household resources – wealth, income, parental education, and social connections – affect expenditure. The basic hypothesis starts from the premise that schooling is highly valued (see Chapter 7). Households would therefore invest heavily if they could. However, they are constrained in the amount of resources they can access, and cannot borrow cheaply. So the hypothesis is that the level of investment depends directly on their initial level of resources (per child). As with other decisions, I then test whether current income is also important, which if true would indicate that households are so constrained in their ability to save and borrow that even short-term changes in income – as opposed to the longer term financial status indicated by their asset ownership – affect education expenditure. Third, I add dummies for location, which if significant would suggest that differences in school availability between locations constrain the ability of households to invest in education. Fourth, I test whether parents' or children's occupational expectations have an additional influence on expenditure.

A simple cross-tabulation makes clear that there is a strong relationship between wealth and educational expenditure (Figure 28). Expenditure was much higher in the Lalbag study area than the others, and somewhat higher in Begunbari than in the other two areas. The small difference between average expenditure on boys and girls was not statistically significant. Educational expenditure, though small in absolute terms, is often a large proportion of a household's income – from 4% per school-going child for the poorest households to 11% for the wealthiest (Figure 29). This is in line with the findings of earlier studies in Bangladesh that the poorest pay less, and spend a smaller share of their incomes, on education, because they need to allot more for

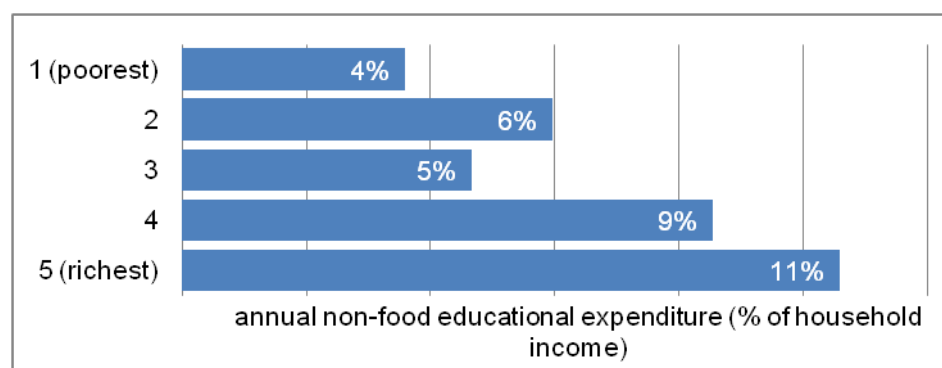
food and other vital living expenses (World Bank, 2001; Baker, 2007)²⁸. Thus having a number of school-going children would potentially place a large strain on the household's income, unless it was accompanied by reduced expenditure on each child.

Figure 28. Expenditure by study area, sex, and wealth (excluding food)



Note: This figure uses AI2 as the wealth indicator (see Chapter 5 and Appendix 2); a similar pattern was obtained using AI1 or per-capita income quintiles.

Figure 29. Annual non-food expenditure per school-going child, as a % of total household income, by asset index quintile (children aged 4-15)



The results of the multivariate analysis (Table 33) confirm that households in the higher wealth quintiles spend more. Households with more children spend less per school-going child,

²⁸ The finding seems at odds with earlier studies from several other countries (Bray, 1996) showing that the poor pay *more* for education as a proportion of their incomes. However these studies looking at the entire income distribution in a country are not comparable with the present study which focuses on slum households, all of which are poor compared to the general population. My finding is thus that the very poor spend a smaller part of their income on education than the moderately poor, which is not surprising given that the poorest need to use most of their money for food and shelter.

although this coefficient becomes non-significant when a different wealth index (AI2) is used. More educated parents also spend more. There is no significant difference in expenditure between female- and male-headed households. Households with higher income spend more on education, even controlling for wealth.

Having relatives or friends in the slum is associated with higher expenditure and having migrated recently is associated with lower expenditure. However, this result alters somewhat depending on which set of variables is included. This is to be expected given the high degree of correlation between social connections and migration status; cross-tabulation shows that 75% of migrant households, but 99% of non-migrant households, have relatives living in the same area. Other social connection indicators are not significant. Having relatives living in Dhaka but not in the same area, belonging to organizations such as a credit group, and knowing a slum leader, do not seem to affect expenditure.

Expenditure in Lalbag was significantly higher than in the other three locations, and there are no significant differences among the other three locations. Adding the slum dummies reduced the importance of the wealth quintiles (at least in some specifications), suggesting that the wealth variable partly picks up on differences between locations. I also test whether excluding Lalbag affects the results of the models (see Appendix 4 for details). The wealth effects appear to be stronger when Lalbag is excluded, suggesting that they are genuine and not just due to differences in wealth coinciding with differences in school availability.

Table 33. Results of linear regression for annual educational expenditure (in taka) (selected models)

Model	8.3.5	8.3.6a
age	266.72 **	230.08
sex	-173.02	528.59
children aged 0 to 15	-330.55 *	53.41
Q2 or Q3	146.70	576.56
Q4	883.7 †	1909.4 **
Q5	2118.6 ***	3311.5 ***
parents' education	238.72 ***	293.81 ***
belong to an organization	-331.31	21.72
relatives in area	333.58	505.82
relatives in Dhaka	-346.90	-192.41
some/many friends	901.78 *	1074.54 *
know a leader	-104.75	434.46
recent migrant	-792.7 *	-477.6
non-migrant	876.47	1354.53 *
income	193.88 **	127.79 *
Korail	450.27	188.09
Lalbag	2127.3 ***	3334.6 ***
Begunbari	278.41	239.52
PE: factory		657.82
PE: self-employed		-10.76
PE: high status		3594.8 ***
PE: housewife		1017.30
PE: other		1072.82
constant	-2164.2 †	-7197.8 **
age range	6-11	11-15
N	470	544
R ²	0.389	0.540
Adjusted R ²	0.365	0.520

*Note. The results shown are linear coefficients using ordinary least squares. PE = parents' expectations. Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Using model 8.3.5 (Table 33; see footnote 26) it is possible to estimate the magnitude of some of the effects. Being in the wealthiest quintile is associated with additional annual expenditure of Tk. 2000 compared to the poorest quintile, controlling for other variables. An additional year in school of the most educated parent is associated with about Tk. 200 more expenditure. An

extra Tk. 1000 of monthly household income is associated with Tk. 200 of additional annual education expenditure.

I test whether there are differences between the sexes. When a dummy for sex is added to the previous models, its coefficient is not significant, reflecting similar average expenditure levels for girls and boys. However, applying model 8.3.5 for girls and boys separately, the results suggest that the determinants of expenditure may be different. For both boys and girls, parents with higher levels of education, and those in the Lalbag study area, spent more. But for boys, wealth, friends, and migration status are significant, whereas for girls, income is significant, but wealth is only significant in comparing the poorest and richest quintiles. This is difficult to interpret with confidence, but consistent with expenditure on girls being more affected by shorter term fluctuations in income while expenditure on boys depends more on the long term economic and social position of the household.

I explore effects of expectations and aspirations by adding dummies for (a) parents' occupational expectations, (b) children's occupational expectations, and (c) children's occupational aspirations²⁹. The results are similar in each case: expecting or aspiring to relatively high status employment such as an office job or teaching job, is associated with significantly higher educational expenditure, compared to other categories of expectation or aspiration. There appears to be little difference between the sexes in the effects of expectations and aspirations: the expectation or aspiration towards high status employment is associated with higher expenditure in both cases.

As shown in section 6.1 much of educational expenditure is on private tuition. For the poorest wealth quintile, the largest part of their educational expenditure goes towards clothes, while for the better-off private tuition is the largest expenditure item. The richest also pay relatively high school fees.

In summary, households that are wealthier, have higher incomes, have fewer children, have friends and relatives living nearby, are not recent migrants, and that stay in one particular study area (Lalbag), tend to spend more on their children's education. The relationship between wealth and expenditure is weaker when controlling for other variables, but is still evident, especially when comparing the poorest and richest quintiles. Parents who expect their children to enter relatively high status employment tend to spend more on their education, and this is also the case for children who themselves expect or hope for high status employment. Wealth, friends, and migration appear to be significant predictors of educational expenditure for boys, while income seems a better predictor for girls.

²⁹ The expectations and aspirations variables were only available for 11-15 year olds, so this model focuses on that age range.

8.4. School type

The type of schools attended by children at primary grades varied dramatically between the different slums (Table 34). In Cholonika and Korail most children who were in school went to NGO schools; in Lalbag and Begunbari most went to government primary schools (GPS). 12% went to private schools (kindergartens or private secondary schools with attached primary grades), 4% to registered non-government schools, and 3% to different types of madrasa.

Table 34. School type by study area (school-going children in grades 1-5)

	Cholonika	Korail	Lalbag	Begunbari	Overall
GPS	5%	36%	62%	71%	42%
RNGPS	8%	1%	4%	0%	4%
NGO	66%	54%	8%	2%	33%
madrasa	3%	3%	2%	8%	3%
kindergarten	4%	6%	16%	0%	8%
private secondary	7%	0%	3%	8%	4%
other	7%	0%	6%	10%	6%
total	100%	100%	100%	100%	100%

The type of school also varied according to wealth (Table 35). NGOs dominated among the poorest quintile, while GPS enrolment was highest among the middle wealth quintile. Among the richest, a large proportion also were in GPS, and some 14% were in NGO schools, but this group used a much more diverse range of schools, including kindergartens³⁰ (17%) and private secondary schools with primary grades attached (7%). A few students in the sample attended different types of madrasa, but not enough to draw conclusions about their wealth or location.

³⁰ As noted in Box 1 (p. 33), ‘kindergarten’ in Bangladesh may refer specifically to a private school for small children, or more generally to any fully private primary school. In the current sample there were students aged 4 to 13 reportedly studying in kindergartens.

Table 35. Primary school type for 6-10 year olds, by wealth quintile and sex (simplified categories)

%	average	wealth quintile		male	female
		poorest	richest		
Government / government-supported	49.9	37.9	56.7	53.8	46.2
NGO	34.1	57.8	12.4	31.0	36.9
private	13.4	2.9	25.8	13.6	13.2
other	2.6	1.5	5.1	1.6	3.6
total	100.0	100.0	100.0	100.0	100.0

Note: both school-going children in grades 1-5, and children who dropped out from grades 1-5, are included. Government/government-supported includes GPS, RNGPS, and government-supported madrasas.

I use multinomial logistic regression to examine the effects of household characteristics on school type (Table 36). I allow three outcomes: government or government-supported; NGO; and private. (The 2.6% of students who went to non-government madrasas or unspecified ‘other’ school types are ignored here.) Wealth and income effects are significant in the initial models that exclude slum dummies (Table 36, model 8.4.3 and 8.4.4). But when dummies for each slum area are added to the model (8.4.5), their coefficients are significant and the wealth and income effects disappear for NGO schools. This suggests that the differences in likelihood of going to an NGO school can be explained better by location – living in a slum with more NGO schools – than by wealth *per se*. Students in Begunbari, where we found no NGO schools, were least likely to be going to one, followed by students in Lalbag, where there is a large NGO school but also a large government school. Students in Korail and Cholonika, where there were many NGO schools but limited government provision, were unsurprisingly the most likely to go to an NGO school. Differences in each case are statistically significant.

Turning to private schools, wealth is still significant for private school enrolment, separately from the effects of location. Students from Cholonika were significantly more likely than students from the other three slums to go to a private school as opposed to a government school. However, this reflects the very low proportion of students from Cholonika in government schools (25%) rather than a high proportion in private schools (which was in fact only 9% in Cholonika, compared to 13% for the sample as a whole). Relative to the chance of being in an NGO school, students in Cholonika are significantly less likely than those in Lalbag or Begunbari to be in a private school.

Social connections are also significant in explaining school type: households without any relatives in Dhaka and recent migrants were more likely to send children to an NGO school

(compared to government school), while less recent migrants were more likely to send them to a private school. Households that belonged to an organization were more likely to send children to either an NGO school or private school, rather than a government school. In particular, a high proportion of private school students (32%) and NGO school students (23%) were from households belonging to credit organizations, compared to government school students (19%).

Girls were significantly more likely than boys to be in NGO schools rather than government schools. Interaction effects between sex and the other explanatory variables were not jointly significant, suggesting that the same model works for both boys and girls. Belonging to a female-headed household does not seem to affect the type of school chosen.

Given that location appears to be the most important factor for school type, I also test model 8.4.4 separately for each slum location. However few coefficients are significant in the resulting models. The wealthiest quintile were more likely than others to go to private school in Cholonika; children of more educated parents in Lalbag were more likely to be in private school. Girls in Korail were more likely than boys to be in NGO school, perhaps reflecting targeting of girls by local NGOs.

Table 36. Results of multinomial logistic regression for school type (selected models)

Model	8.4.3		8.4.4		8.4.5	
	(ngo)	(pri)	(ngo)	(pri)	(ngo)	(pri)
sex	1.33	0.53 †	1.34 *	0.84	1.42 *	0.85
children aged 0 to 15	0.94	0.75 †	0.93	0.83 †	0.93	0.83 †
Q2 or Q3	0.58 *	0.90	0.52 **	1.90	0.76	2.15 †
Q4	0.93	3.23 *	0.62 *	3.75 ***	0.95	4.05 ***
Q5	0.50 *	4.00 **	0.40 ***	5.64 ***	0.66	6.61 ***
parents' education	0.97	1.13 **	0.93 **	1.13 ***	0.94 *	1.13 ***
belong to an organization	2.03 **	2.98 **				
relatives in area	1.30	1.04				
relatives in Dhaka	0.44 **	0.88				
some/many friends	1.35	2.33 †				
know a leader	0.83	0.49 †				
recent migrant	1.67 *	0.35 *				
non-migrant	0.29 *	1.27				
income			0.88 ***	1.02	0.96	1.03
Korail					0.51 **	0.19 ***
Lalbag					0.06 ***	0.33 ***
Begunbari					0.02 ***	0.24 ***
N	568		980		980	
Pseudo-R ²	0.134		0.104		0.259	

Note. The results shown are relative risk ratios, showing the ratio of the chance of being in an NGO school (ngo) or a private school (pri), respectively, to that of being in a government or government-supported school. See Appendix 4.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

In my preferred specification (8.4.5), an extra year of education for the most educated parent meant the probability of a child going to an NGO school was about 6% lower and of going to a private school 13% higher. For children from the 4th and 5th wealth quintiles it was four and six times, respectively, more probable that they would go to private school than those from the poorest quintile.

To what extent did parents have a real choice about which school to send their children to? In several interviews, parents suggested that there were plenty of schools to choose from in their area, *if you could afford the fees and get admitted*. When asked to give a single main reason for choosing a particular school, most parents cited good teaching (41%) and proximity (37%) (Table 37). But for NGO schools they often cited the school not costing anything (34%) and

were less likely to mention the quality of teaching as the main reason (21%). By contrast those who sent their children to private schools overwhelmingly cited teaching quality (88%) as the main reason. A similar divide in the main reasons can be seen between the poorest quintile – among whom choosing the nearest school was the dominant reason – and the richest – who more often (58%) claimed to have chosen the school because the teaching was good.

Table 37. Reasons for choosing the school (school-going children in grades 1-5)

	average	wealth quintile		sex		school type		
		poorest	richest	male	female	government	NGO	private
it is the nearest	37.4	45.4	30.8	36.3	38.5	42.9	42.4	8.5
teaching is good	41.2	28.7	58.1	42.7	39.7	40.7	21.0	88.0
religious values	2.9	1.2	2.2	2.9	2.9	4.8	0.0	1.7
costs nothing	16.6	23.1	7.9	15.1	18.0	10.7	33.9	0.0
other	1.9	1.6	0.9	2.9	1.0	1.0	2.6	1.7
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The interviews confirm that a combination of being cost-free and nearby were decisive factors in choosing an NGO school, and also to some extent in government primary schools (which may not be entirely cost-free but are relatively cheap):

[I]t needs no money to study in the NGO schools. Their quality is also good. It is less expensive than other schools, such as kindergartens.

– *father of boy, 6, never enrolled, Korail*

The school is nearer to our locality. The education quality of this school is good. The children are safe in the school. It doesn't take that much time to take the child to school. The environment of the school is good.... There were other schools in the locality which were good schools. But they were very expensive ...

– *father of boy, 12, who dropped out from grade 1 of GPS, Begunbari*

There are many schools in the area I could choose if I wanted to. But I don't have the means to enrol her in a better school. My daughter likes this school since she was little and it is free. That is why I chose this school.

– *father of girl, 14, in grade 7 at NGO school, Cholonitika*

However, parents also appreciated aspects of NGO schools such as alternative systems of teaching, for instance with handicrafts as well as conventional school lessons, and provision of training.

Yes, there were other schools where I could get my child admitted. But there is no cost needed in this school. Moreover, after passing class 8 they will arrange training with

scholarship. Then, her future life will be bright.

—*father of girl, 13, in grade 5 at NGO school, Lalbag*

Contact between parents and teachers was also valued in one NGO school, although the same respondent later admitted that he didn't go to the school much himself.

My daughter studies at the [*name of NGO school*]. Sometimes the teachers call a meeting for all the guardians. Her mother goes there. I went once. I liked the rules and the system of education of the school.

—*Was there anything you disliked about the school?* Because I didn't go to the school much I didn't see anything that offended me or I disliked.

—*father of girl, 14, in grade 7 at NGO school, Cholontika*

Impartial treatment and acceptance of children from the slum on equal terms, reportedly a problem in some other schools, was another appreciated characteristic of NGO schools:

Yes there are other schools in my area. But this school does not need any payment. Besides, the quality of this school is good. ... Other schools are expensive. You have to buy books, pads, pens etc. Other schools are corrupted but no child is treated partially in this school.

—*father of girl, 14, who dropped out from grade 5 of NGO school, Korail*

For a slightly better-off family with a son in private school, proximity and affordability were still the important considerations in the decision. But while parents of NGO school students stressed the need to avoid *any* expense, this respondent stressed expenses being within the family's means:

Yes there were other schools. Government, non-government, NGO, kindergarten, madrasa schools were there. But I chose this school because it is situated beside my house. And also its expenses are within my capability.

—*father of boy, 14, in grade 9 at private secondary school, Cholontika*

In summary, most parents were faced with a considerable range of schools to choose from, but this was whittled down severely by proximity and affordability. Different locations varied in their endowment of schools that fit within these constraints. For the very poorest, affordability constraints pushed them heavily towards NGO schools, if NGO schools were available in their area. The regression results suggest that location in a slum where there are lots of NGO schools appears to be the most important factor in the decision to attend one, although since these schools tend (on average for this sample) to be located where people are poorest, this also means the least wealthy and those with the lowest incomes are more often in NGO schools. Girls are more likely than boys to go to NGO schools. For private schools, location also matters, but controlling for location, wealthier households are also more likely to send their children to private schools than poorer ones.

8.5. Dropping out

Of those aged 6-15 in the sample who had ever been to school, around 17% were reported by parents to have dropped out. This was much higher for the poorest (28%) than the richest (7%), and about the same for boys and girls (Table 38).

Table 38. Drop-out by wealth and sex (6-15 years)

	average	wealth quintile		male	female
		poorest	richest		
drop-outs as % of those who have ever been to school	17.3	28.2	6.9	17.1	17.5
drop-outs as % of total	14.7	21.2	6.6	14.0	15.4

In order to examine the process of dropping out of school I use logistic regression comparing the characteristics of those who stay in school to those who have dropped out. There was no significant difference between boys and girls. Children from wealthier families are less likely to drop out; in the preferred specification (Table 39, model 8.5.6) those from the 4th and 5th wealth quintiles are respectively about 3½ and 6 times less likely to drop out than those from the poorest quintile. In model 8.5.2 children with more educated parents are less likely to drop out, but this association disappears when parents' migration status is taken into account. Recent migrants (who are typically less educated) are more likely to have children who drop out of school, and migration status seems to be a better predictor than education. Other variables related to social connections are not significant. Belonging to a female-headed household does not appear to affect drop-out. Children in Lalbag are less likely to drop out than elsewhere. Children with lower height for their age were more likely to drop out, but there was no significant relationship between the child's current health and drop-out. The expectation and aspiration towards high status employment are also associated with lower drop-out, although (as before) any causal relationship between higher expectations and aspirations, and better school outcomes, could be in either direction.

Table 39. Results of logistic regression for drop-out (selected models)

Model	8.5.2	8.5.6	8.5.7a
sex	1.08	0.69	0.92
age	0.55 ***	0.52 ***	0.48 ***
children aged 0 to 15	0.91	0.91	0.98
Q2 or Q3	1.68 *	1.59	1.97 †
Q4	4.88 ***	3.68 ***	3.72 **
Q5	9.45 ***	5.94 ***	5.88 ***
parents' education	1.10 **	1.05	1.02
female headed	0.76		
recent migrant		0.52 **	0.51 *
non-migrant		4.56 *	3.79 †
Korail		0.84	0.84
Lalbag		5.14 ***	4.81 **
Begunbari		0.39 **	0.56 †
good health		0.76	
height for age		0.67 **	
PE: factory			1.15
PE: self-employed			0.81
PE: high status			4.98 *
PE: housewife			1.03
PE: other			2.93
age range	6-15	6-15	11-15
N	1270	738	502
Pseudo R ²	0.319	0.3835	0.4104

Note: The results shown are the odds ratios of having dropped out from school, compared to being currently enrolled. PE = parents' expectations.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

The main reasons given by parents for children dropping out were either financial in nature, or to do with the child's interest in, and ability to do, schoolwork. 56% of parents said that the main reason a child dropped out was that they were unable to afford the school expenses (Table 40). A further 11% said the child needed to leave school to work, either looking after siblings, in family business, or outside the home. Some 21% in total said that the child either does not value studies, finds school too difficult or boring, or does not work hard enough. Children from poorer households, and girls, are more likely to be said to have dropped out because of school expenses or the need to work. Among the richest households, and for boys, expenses and the

need to work were also commonly cited as the main reason, but in these cases many parents mentioned the child not valuing studies and other reasons as well. 57% of parents said that they decided the child would drop out, while 41% said the child him or herself decided.

Table 40. Reason for dropping out, age 6-15

(%)	average	wealth quintile		male	female
		poorest	richest		
expenses	56.2	65.1	38.5	47.1	64.6
need to work	11.1	7.6	15.4	6.7	15.0
child's attitude or learning	20.7	16.0	30.8	34.6	8.0
other	12.0	11.3	15.4	11.5	12.4
total	100.0	100.0	100.0	100.0	100.0

Note. Need to work includes household work, working in a family business, and looking after other family members. 'Child's attitude or learning' includes child does not value studies, finds school work too difficult, does not work hard enough, or finds schoolwork boring.

23% of students who dropped out had not, according to their parents, attended school regularly prior to dropping out. For comparison, fewer than 10% of school-going students had reportedly been absent from school in the past week. At least in some cases, then, dropping out is preceded by a period of irregular attendance. Irregular attendance was more common for boys than girls, and was largely attributed by parents to the child finding school different or not valuing his or her studies.

Thus two somewhat separate patterns of drop-out emerge. In the first, direct expenses or the need for the child to work are cited as the main reason. This is particularly common among the poorest households. The non-significance of income in the regressions, though, suggests it is a result of long term poverty rather than of a sudden change in income that leaves a household temporarily unable to pay fees.

In the second pattern, the child either finds school hard or is uninterested in school; there may be a period of irregular attendance, sometimes without the parents' knowledge or permission; and finally the child drops out altogether. This pattern is also evident in previous studies in urban Bangladesh (Kabeer and Mahmud, 2009; SIDA Bangladesh, 2010; see section 3.4). In the present study it appears to account for a minority of cases rather than being the dominant trend. It is possible, however, that under-reporting affected the results here, as parents may be reluctant to admit that their child's behaviour played a role in dropping out. Boys were more likely than girls to have dropped out in this way, although it may be that there was greater

under-reporting of such behaviour for girls, given cultural norms that allow boys more independence.

Of relevance for the first pattern is the opportunity cost of education in terms of potential income from child labour. As noted in Chapter 6, this opportunity cost is quite high as a proportion of household income, especially for older children, so the decision to keep a child in school must be difficult for struggling households. Child wages were lowest in Cholontika and highest in Lalbag; yet drop-out was lowest in Lalbag and quite high in Cholontika. A consistent explanation is that in Lalbag better educational opportunities mean that few children work, and they will only work when there are relatively well-paid opportunities. In Cholontika, the proportion of drop-outs is high (around 20%), but lower than in Korail (22%) or Begunbari (29%), even though the proportion of extremely poor families is among the highest in Cholontika. So a plausible interpretation is that the drop-out rate would be higher still were it not for low child wages.

The presence of both of these patterns was also confirmed in in-depth interviews. Parents linked chronic shortage of income, made worse by occasional crises, to difficulty in keeping children in school, particularly when they reached the end of the primary grades.

When the poverty increased in our family my son finished studying in [*name of an NGO school*]. You need money to enrol into high school. Do we buy food or enrol our child in school? We didn't have education in our mind, only the thought of where to send him to work so that he can earn money. Time passed like this and the chance to enrol in 6th grade. Our son cried a lot then. This is how his studying stopped.
 – *father of boy, 14, who dropped out from grade 5 of an NGO school, grade 5, Cholontika*

This family, like others, had high aspirations that were progressively revised downwards: “At first we hoped for big things. We thought our son would study and one day become an engineer.” In such cases, children were apparently interested and motivated to continue in school, but were stopped because of their parents’ inability to pay for school expenses and (although this was less explicit) a need for the child to work.

The second pattern is affirmed especially in the case of children who (from their parents’ and their own accounts) dropped out of their own accord. For one boy who had dropped out within a few days of being enrolled in a government primary school, his advanced age (around 10) at enrolment may have been part of the reason. His parents attributed the decision entirely to his behaviour, however:

He doesn't listen to anyone's word. He does whatever he wants. He involves himself with some bad boys. The whole day he stays outside the house.
 – *father of boy, 12, who dropped out from grade 1 of GPS, Begunbari*

For parents this outcome was simply the result of children's independent and irresponsible behaviour. But there may have been deeper reasons for their behaviour. In the following case, the teenage respondent portrays his decision as a strategic response to the difficulty of reaching the end of secondary school and prospects in the job market, while his father attributes it to a love of cinema and gossiping:

[W]hen I realized that it is impossible for me to pass the SSC examinations, and to do business not so much education is needed, I didn't put emphasis on going to school.

— *boy, 15, who dropped out from GPS, Lalbag*

—*How did you take the decision to stop your son's going to school?* When we saw that he was not going to school properly or, in the name of going to school, gossiping with friends. He spent money going to the cinema. When we saw that day by day things were getting worse, then we thought that he would be a man of nothing. One day our son said, "I will not go to school anymore." He cheated us in the name of going to school even before his schooling was stopped.

— *his father*

Of course, these two patterns are not mutually incompatible; drop-out is usually the result of a series of events rather than having a single discrete cause (Hunt, 2008). A mixture of the two patterns can be seen in the case of one girl who dropped out from secondary school to work in a garments factory, despite apparently liking everything about the school. By her own account she "mixed with garments workers, didn't listen to her parents and lived by her own will" (girl, 14, who dropped out from private secondary school). She now had some regrets about her decision, reflecting that, as a result of dropping out when she did, she "cannot get a better job than this one, cannot even get a promotion in this job".

Some additional patterns of dropping out emerged from the interviews that complicate the story told by the survey results. As I noted in section 6.3.2, the environment of the slum was often seen as an unsafe one for girls' education. Returning to the respondent quoted there (p. 133), it is clear that marriage was key in the drop-out decision:

My daughter is young but we kept having marriage proposals and I thought in this environment in the slum what I could do so I agreed. Besides that the aunt and uncles of the girl kept telling me marry her off saying she might not get better offer if older. That is how I took the decision of marrying her off. ... I took this decision because I am poor and I won't be able to give her a higher education. Maybe it wasn't right because my daughter had a great desire to learn.

— *father of girl, 14, who dropped out from grade 6 of a private secondary school, Cholonika*

In another case the father attributes the decision to stop his daughter's schooling to the difficult journey to secondary school. Taking public transport from one side of Dhaka to another could be a difficult and risky process for a teenage girl; commutes of 2 hours each way are not

uncommon amongst the city's workers. But the answer likely conceals financial or other reasons for not going to one of the several schools in the area around their home that would not have required a long journey.

[M]y daughter studied in the [*name of NGO school*]. There they teach only to class eight and after that she had to get admission in [*name of another school*]. That school was at quite a distance from our house. She had to go there by bus. She used to vomit in the bus. Because of these reasons her schooling was stopped automatically. She didn't want to go to school. No, before leaving she wasn't irregular. She always went to school regularly.

– *father of girl, 15, who dropped out from grade 8 at an NGO school, Lalbag*

There was a second case where illness led to permanently dropping out from school:

after coming to Dhaka I got him admitted in an NGO school. After one month he became severely ill. Then another student was admitted in his place. Thus he dropped out from the school.

– *father of boy, 11, who dropped out from grade 1 of GPS, Korail*

That illness could lead to dropping out permanently demonstrates how fragile the relationship is between families and the school system. They did not have the power to negotiate with the school when things went wrong; nor did they have the financial resources to choose another school.

8.6. The outcome of the decisions: grade attainment

As discussed in section 8.1 above, there is considerable overage enrolment in the sample. Some 40% of 6 year olds, but only 13% of 8 year olds, have never been to school. And as shown in Figure 27, after age 10, there is a steep drop-off in the proportion enrolled due to drop-out. By age 12, 28% have spent time in school but have dropped out. By age 14 and 15 this rises to over 40%, and combined with the 10% or so who have never been to school, this means that fewer than half of the 14 and 15 year olds in the sample are still in school.

What are the implications of this pattern of drop-out and non-enrolment for 11-15 year olds as a group? One third of this age group were still in primary school, 28% in secondary school, one-third working, and the rest were currently “doing nothing,” according to their parents (Table 41). Less than half had reached grade 5 and 20% were at grade 2 or below. For those who were working, the most common occupations were in the garments industry, followed by working for their own parents, working as a vendor or for small business, and working as a domestic servant.

Table 41. What 11-15 year olds are doing

	%
In primary school	32
In secondary school	28
Dropped out, unemployed	5
Never enrolled, unemployed	3
Dropped out, working	26
Never enrolled, working	6

An average 11 year old – including those who never went to school or who went but dropped out – had completed 3.4 years of school (Table 42), and an average 15 year old 5.7 years. In general female participants had higher grade attainment than males, although this gap disappears at age 15. Grade attainment in the richest wealth quintile is much higher than in the poorest quintile, and the gap seems to increase with age.

Table 42. Average grade attainment at age 11 and 15, by wealth and sex

	average	wealth quintile		male	female
		poorest	richest		
at age 11	3.36	2.71	4.32	3.14	3.61
at age 15	5.68	3.21	7.77	5.68	5.68

Note: grade attainment is the number of grades completed, e.g. 3 for a student who completed grade 3

I use linear regression to examine the correlates of grade attainment, controlling for age (Table 43). Participants from the wealthiest quintile had (in the preferred model, 8.6.5) reached a grade 1.2 grades higher than those from the poorest. Higher income was also significantly associated with higher grade attainment. There were significant differences among the slums, even controlling for wealth, with lowest attainment in Begunbari and highest in Lalbag. An extra grade of education of the most educated parent was associated with 0.1 extra grades of education for the child. Girls, on average, had half a grade more education than boys. Children from families with some or many friends had significantly higher grade attainment and recent migrants had significantly lower attainment.

Adding parents' occupational expectation (model 8.6.6a), the expectation of high status employment is associated with significantly higher attainment. This does nothing to reduce the significance of the coefficients on wealth, even though the expectation of high status employment was strongly correlated with wealth. Creating an interaction variable between

wealth and parents' expectations (see Appendix 4, Table 54, model 8.6.7), the low-expectation low-wealth group had the lowest educational attainment, the high-expectation high-wealth group the highest, and the other two groups came in the middle. This is consistent with independent effects of wealth and parental expectations on educational attainment, and suggests that high expectations partly, but far from entirely, compensate for coming from a poorer household. These results are in line with studies from developed countries showing that socioeconomic status affects expectations and aspirations, which in turn affect educational outcomes (e.g. Rothon et al., 2011; Sewell and Hauser, 1992; see Chapter 2). Again, though, causation probably runs in both directions between parental occupational expectations and educational attainment, so it is not possible to draw strong conclusions.

Though several of the variables are strongly significant, the predictive power of this model overall is not very impressive: controlling for age, 17% of the variation is explained by sex, wealth, number of children, income, parents' education, and location. Adding social connection variables the R^2 statistic (the proportion of variation explained by the explanatory variables) reaches 24%. Viewing grade attainment as a measure of the final outcome of the different educational decisions, it is worth asking what the contribution of the different explanatory variables is to this outcome. This question can be addressed by decomposing the explained variation (using the Owen value R^2 decomposition; see Hüttner and Sunder, 2011). The decomposition reveals that 32% is due to wealth, 21% to parents' education, 21% to location, 12% to social connections (whether the household has some or many friends, and whether the primary caregiver is a recent migrant), 7% to sex, and 6% to income (see Appendix 4, Table 55 for full results).

Table 43. Linear regression results for grade attainment (selected models)

Model	8.6.5	8.6.6a
sex	0.51 ***	0.77 ***
age	0.54 ***	0.47 ***
children aged 0 to 15	-0.12 *	-0.05
Q2 or Q3	0.33 †	0.48 *
Q4	0.52 **	0.69 **
Q5	1.21 ***	1.39 ***
parents' education	0.11 ***	0.14 ***
some/many friends	0.36 *	0.51 *
recent migrant	-0.33 *	-0.28
income	0.04 *	0.02
Korail	-0.26	-0.27
Lalbag	0.26	0.15
Begunbari	-0.51 **	-0.36
PE: factory		-0.04
PE: self-employed		-0.13
PE: high status		1.35 ***
PE: housewife		0.53
PE: other		0.01
constant	-4.23 ***	-4.77 ***

Age range	6-15	11-15
N	917	550
R ²	0.538	0.446
Adjusted R ²	0.531	0.427

Note. The results shown are linear coefficients using ordinary least squares. PE = parents' expectations. See Appendix 4.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

8.7. Summary of statistical results

Table 44 summarizes the significant results from the statistical models. It becomes clear that some factors – namely wealth and slum area – have fairly consistent effects across the different educational decisions, whereas others have effects at specific points.

Table 44. Summary of significant results

Category	More likely to be in this category if...
Not enrolling at 6-10 (vs. enrolled at right age)	Less wealth; male; few or no friends; don't know any slum leader; recent migrants. Lower height for age or in poor health (for boys). Less educated parents (for boys)
Enrolled but overage at 6-10 (vs. enrolled at right age)	Less wealth; few or no friends; don't know any slum leader. Lower height for age or in poor health (for boys).
Never enrolled at 11-15 (vs. enrolled or dropped out)	Less wealth (but effect disappears when slum dummies are added); male; female-headed household; don't know any slum leader; less educated parents.
Dropped out (vs. continuing in school)	Less wealth; recent migrants; lower height for age; less educated parents.
In private school (vs. government school)	More wealth; not recent migrants; belong to an organization; more educated parents
In NGO school (vs. government school)	Less wealth (but effect disappears when slum dummies are added); lower income; female; no relatives in Dhaka; recent migrants; belong to an organization; less educated parents
Higher expenditure	More wealth; higher income; relatives in slum; some or many friends; not a recent migrant; more educated parents
Higher grade attainment	More wealth; higher income; female; some or many friends; not recent migrants

Wealth was significant in every case and in the expected direction, although for the risk of never enrolling, the wealth variables became non-significant after adding location dummies; enrolment is lower in poorer slum areas, but location rather than wealth is the better predictor of enrolment. Income was generally not important after controlling for wealth, except that it influenced expenditure, especially for girls, and was also significant in explaining grade attainment. Current income (as opposed to longer term poverty or wealth) appears not to be significant in explaining particular decisions about enrolment or drop-out, but may affect decisions over expenditure such as that between a high- and low-fee school, or between a more or less expensive private tutor, which in turn affect the outcomes in terms of grade attainment.

For every decision point there was at least one significant difference between the slum areas, and the order was the same: outcomes in Korail and Begunbari were worst, then Cholonika, then Lalbag. Note that this ordering came after controlling for wealth and other variables. Cholonika was an extremely poor area and education there seems to have been boosted by a strong NGO presence; 47% of 6-15 year olds in that area were in NGO schools. The significance of location demonstrates the importance that the supply of school places in different parts of the city is important as well as parents' ability to pay for it.

Lower enrolment and grade attainment for boys results particularly from some boys not enrolling at all; there are no significant sex differences in drop-out or overage enrolment. Height for age is significant for young boys not enrolling on time, but not for girls; parents' education is significant for the non-enrolment of young boys but not young girls. The explanation may lie in more girls than boys being in NGO schools, which could be due to NGOs targeting girls or providing stipends, especially for girls in the most marginalized groups. An alternative explanation is that parents in the poorest households had a stronger expectation of girls doing work in garment factories, where at least basic education would be useful, than boys.

A third possible explanation is that boys are allowed to get away with more wilful and independent behaviour, so that if they do not show an early interest in school their parents may not force them. Though there are risks for girls in attending school, if the school is well located and the journey to school is safe, then it may actually be safer than elsewhere in the slum environment. Different work opportunities do *not* seem to be part of the explanation: as noted in section 6.3.3, girls spent more time doing household work than boys, and were also more likely to work outside it (usually in garments factories). However, it is possible that boys' work in lower-status occupations such as working in small shops and tea stalls was underreported.

Parents' education was significant for enrolling on time (particularly for boys), for never enrolment, possibly for drop-out (this effect disappears when other explanatory variables are added), and for expenditure. Female-headed households for the most part made the same decisions as male-headed ones, although there was a higher risk of never-enrolment in the former.

Recent migrants were more likely not to enrol at young ages, and more likely to drop out; they also spent less (even controlling for wealth and income). Having friends in Dhaka was associated with enrolment at the right age; having relatives was associated with higher expenditure; and knowing a leader was associated with a higher chance of enrolment (versus never enrolling). This suggests that social connections are important throughout a child's education, but that different relationships enable the family to access different resources. For instance relatives may be important sources of financial support, while friends help with

information, and slum leaders help with the relationship between the household and institutions such as the school, police and local government. It is interesting to contrast these results from the statistical analysis with participants' claims that trust and mutual aid were badly lacking in the slum environment (section 5.6). It may be precisely in an environment of low trust and low mutual aid that such relationships, where they do exist, become particularly beneficial for those who have them. In an environment where a steady flow of newcomers are arriving, and the supply of school places does not readily increase in response, longer-established households have an incentive to use their existing social relationships, and form new ones, to maintain preferential access to these places.

8.8. Expectations and aspirations in the decision process

In this section, I focus in more detail on expectations and aspirations, in search of a fuller picture of their particular role in educational decisions. As described above, parents who expected their children to go into high status employment consistently kept them in school for longer. Those who expected their children to go into manual work were significantly more likely never to enrol them. Wealthier parents much more often expected their children to become high status employees, and children's own stated aspirations followed a similar pattern. But wealth and expectations appeared to have independent effects on school grade attainment. Students from poor families with high expectations had been in school roughly as long as those from rich families with low expectations, while the low-expectations, low-wealth group had significantly worse outcomes and the high-expectations, high-wealth group had significantly better outcomes. Unfortunately, causation is particularly difficult to establish here, because it is likely both that expectations affect educational decisions, and that prior educational outcomes feed back into expectations. Nevertheless, the results are at least consistent with developed country studies finding that aspirations are important for school achievement (see section 2.4.2).

There was not a large difference between the effects of parents' expectations, children's expectations, and children's aspirations. The survey instrument may not have been capable of separating hopes from realistic expectations, or the questions may be difficult to answer in abstract terms. Alternatively, aspirations may be revised downwards in line with expectations so as to reduce the cognitive dissonance and sense of disappointment that would come from holding hopes or aspirations that one acknowledges are impossible to achieve.

It was plain in interviews that parents and children often had to adjust their aspirations downwards as they learned more about the education system and the job market. Even where children were doing well in school, they and their parents were strongly aware of the vulnerabilities of the situation and reliance on luck:

I have a lot of hope regarding my son. If the government does not destroy this slum, if I can live here, then I will let my son study as much as I can afford. If Allah gives me the strength I will make my son an MA pass.

– *father of boy, 14, in grade 9 at private secondary school, Cholutika*

I have hopes for my daughter. I will teach her as far I can. No matter how much poverty there is if she wishes I will let her pass BA then I will send her abroad where she can get a good job and help my family. ... There can be many reasons for not succeeding. There is expense of the education and the environment of the slum is not so good. Not everyone goes to school and sometimes mixing with the wrong crowd spoils the child. And nowadays it's difficult to get a job because you need to pay a bribe and have connections.

– *father of girl, 14, in grade 7 at NGO school, Cholutika*

Students had to revise their expectations in response to these problems, even when they were academically very successful. In particular, they had to take into account the rising costs of higher levels of education; competition for scarce places; the need to start earning money quickly to alleviate the family's poverty; and the realization that a good education does not automatically lead to a good job:

When I was young I wanted to be a primary school teacher. I like to teach little children and people respect teachers very much. ... Now my hope is to do a good job after my studies so that my father doesn't have to drive a rickshaw when he is old... Actually I heard that to become a teacher you have to bribe people and my father doesn't have enough money. That is why I changed my aspiration. I will do any job. After my studies are done then I can get at least some job.

– *girl, 14, in grade 7 at NGO school, grade 7, Cholutika*

The downward revision of expectations following drop-out was starker. Parents and children spoke of having previously had high aspirations requiring college or university education. In some cases parents felt that such expectations had come to nothing, and complained that their children "didn't give any importance to our expectations" (father of boy, 15, who dropped out from GPS, Lalbag). In others they retained aspirations that their children could do well for themselves, for instance through learning as part of a job and building a career:

R---'s mother said that she wanted to give her children brighter prospects even if it meant having a harder life herself. She had previously had 'high hopes' for her son, such as that he would become a school teacher, a farmer, or take up a medical profession. Her current hopes, given that he is not interested in continuing his studies, are that he can build a career of his own, learning a job, for example in a workshop or furniture shop, carving furniture.

– *notes from small slum interviews*

The participant quoted earlier (p. 187), who accounted in strategic terms for his decision to drop-out from school when he realized he could not finish his SSC, described a cycle of adjustments between expectations and reality. It was (by his account) in response to realizing

that he could not finish the SSC that he gave up his earlier ambition of being a policeman – a job which requires an SSC, and only after that far-off goal had been ruled out did he lose interest and drop out of school.

This process of revising expectations suggests that many parents with low levels of education have limited understanding of the school system and its relationship with the labour market at the outset of their children's education. They also do not know how able and motivated their children will be to make their way through the hurdles of the school and its examinations. In some cases dropping out may be a rational response when they arrive at a fuller understanding of the situation; further education may be less valuable than on-the-job training and experience if the landmark of the SSC – without which it is difficult to demonstrate one's education to employers – is judged unattainable.

In section 2.4.2 I suggested that the mental models on the basis of which parents and children make educational decisions, may mean following conventional wisdom or prevailing normative opinions rather than trying to weigh up costs and benefits in detail when information on them is lacking. Parents could easily perceive the growing importance of education in Bangladeshi, and especially Dhaka, society; education is strongly associated with prestigious jobs, wealth and status. There were discourses ready to hand in which education is idealized as bringing light to the illiterate 'blind', while glossing over the details about how such an effect would operate:

Without education man remains blind.

– *father of girl, 15, who dropped out from grade 6 of private secondary school, Cholonika*

If people don't go to school their eyes don't open. Schools light people with the light of knowledge.

– *father of girl, 14, in grade 7 at NGO school, Cholonika*

Parents are likely to have let these norms and heuristics – the association of education with success in the world, and with moral and personal betterment – guide their decision making in the absence of more specific knowledge of the full costs and effects of education. Most felt compelled to send their children to school, and aimed high for their children, in terms of both education and future careers. Their investments in education were nevertheless constrained by their resources. They can follow normative guidelines about how good and important education is as long as this is compatible with their financial and other resource endowments. So they have high aspirations but do not bank all of their resources on these aspirations being reached; the relatively low cost of the early years of education allows them to start the process, and accept the prevailing wisdom on the need for education, without risking everything. But in many cases their responses suggest they were eventually forced by circumstances to make a more exacting

and realist calculation, particularly when their children had spent some time in school and they began to reach a fuller understanding of how much it would cost (especially to finish secondary school and beyond that stage) and of the limited and uncertain benefits.

8.9. Summary and conclusions

In this chapter I have examined several ‘decision points’ in a child’s schooling: enrolment at the correct age, enrolment overage, total non-enrolment, drop-out, choice of school type, and educational expenditure. In each case I have used both statistical models and qualitative interview results to try and understand how the decision is made and how this varies with the resources – financial, educational, and social – possessed by a household. As hypothesized at the outset, households with more resources tend to make decisions that result in children staying in school longer, but the type of resource that is important varies somewhat for different decisions. Statistically, wealth, income, parents’ education, location, social connections and the child’s sex jointly explain about one-quarter of the variation in grade attainment (controlling for age). The rest of the variation could be accounted for by differences in expected returns to schooling, luck, innate ability, and other aspects of a household’s resources that have not been captured.

I have also found large differences in expenditure and school type; households with the most wealth, social connections and education tend to go for private schools more, meaning their expenditure is higher, and also spend more on private tuition. Their spending means that, even within each slum, there is a clear rich-poor educational divide. The poorest, the least educated, and migrants who have recently arrived in Dhaka, tend to send children to NGO schools. But location is perhaps the most important factor for school type, with a proliferation of NGO schools in one slum area (Cholontika) compensating for a lack of government provision, while in other areas (particularly Begunbari) the supply of school places is wholly inadequate. In debates about non-government delivery of education, there is often an unstated assumption that in cities, there will be both more choice of schools, and the range of options will be the same for all residents. The reality in Dhaka is that parents are reluctant to send their children a long distance, and their choice is heavily constrained by the uneven presence of different school types in different parts of the city. This affects school outcomes, too: grade attainment in Cholontika was better than in Begunbari, but enrolment in Cholontika was heavily concentrated in grade 1, reflecting the difficulty that NGO students often had to advance through the grades or enter the formal system.

Finally, I have tried to document how expectations and aspirations with regard to both education and work interact with the sequence of decisions about education and adapt to the reality that

many children will not be able to pass the secondary school certificate that they need to access good jobs, because of the rising costs at this level.

Educational outcomes in the slums might be seen as surprisingly good or very bad, depending on the reference point. On the one hand, it is impressive that very poor households use a substantial part of their limited resources to invest in their children's education, and that most children go to primary school. On the other hand, many do not complete, and at 70% the net primary enrolment rate is lower than even the poor rural areas examined by the CREATE study. Looking separately at different points in a child's school career makes clear what is often obscured in overall enrolment statistics: that many children enter primary school at a late age and drop out before getting very far. Combined with the findings from Chapter 5 on children's time use, this also shows that the total amount of time spent learning in school is very low, and it is not surprising that many complement this with private tuition (again, see Chapter 5), to the extent that they can afford to.

Whereas people living in slums are often seen as an extremely poor, homogeneous mass, socially excluded and cut off from the rest of society, these findings show how large educational inequalities pertain *within* the slum, along lines of wealth, parents' education, proximity to schools of different kinds, and social connections. Some are more socially excluded than others. This chapter has also confirmed the finding of previous studies that girls are more likely to be in school than boys. Although further exploration is needed of the full reasons for this, it seems that among them would be that boys have more autonomy and so sometimes drop out because they are not succeeding or do not like school; girls' basic education may also be valued more highly because of different sets of labour market opportunities. In general, child labour was not very common at young ages, and non-enrolment in primary school related more to parents' inability to provide the resources such as money (especially for private tuition) and time needed to ensure a successful outcome.

Chapter 9. Conclusions

In this chapter I conclude the thesis with a summary of the main findings; a description of what I see as the main limitations of the study; some reflections on the conceptual framework used for understanding educational decisions; and some implications for policy and programmes.

9.1. Summary of findings

This thesis has considered how households in slums in Dhaka make decisions about education, particularly at the primary level. I have used a framework based on a mixture of livelihoods approaches and returns to education, in which households have resources and relationships that they use to invest in a child's schooling, and expect a range of benefits in return.

First (Chapter 5), I examined what resources were available to households in the slum, using a framework that focuses on resources that could be used for education. The slum environment is far from being an easy one to live in, and most households live below the poverty line. They pay relatively high rents and, at the time of the study, were also increasingly pressed by high food prices. They are time-pressed because of the need to work for income and because of the large amounts of time needed for getting water, cooking, transport, and buying food. Most had friends and relatives living around them, but given the pervasiveness of poverty in slum areas, there were limits to how far they could use these relationships to access resources when they needed them.

Second (Chapter 6), I assessed the extent to which they used different resources to gain access to education, keep children attending school, support their children's learning, and manage the relationship with the school. Households faced direct financial costs of education that were substantial in proportion to their incomes. In particular, private tuition was seen as essential in most government and private schools. More than half of children in primary school had private tuition, despite the low incomes of their parents, and the amounts spent varied sharply with wealth and income. There were also substantial opportunity costs; although children's wages were low, they could form an important portion of household income if a child worked full-time instead of going to school, especially at older ages. There were other costs incurred in gaining access to the school, such as getting through admission tests. Parents had to put time and effort into helping children with school work and making sure they attended regularly, and there were also the psychological costs of children facing discrimination and physical punishment within the school.

Third (Chapter 7), I examined the evidence on the perceived benefits of education, including the relationship between education and occupational expectations and aspirations. Many parents of

school-going children expected – perhaps over-optimistically – their children to become professionals or employees in large formal-sector companies, jobs which would require them at least to finish 10 grades of school. While jobs were available in small informal sector businesses and in the garments industry for those with little education, education was still seen as useful and as necessary to rise to supervisory or managerial posts in factories. As well as the qualification, being able to calculate, read instructions, write bills, and also learning proper behaviour to interact with people at different levels of society, were all valued aspects of education. There was some ambivalence as to whether completing a small amount of education (say, to grade 5) would bring substantial benefits. More idealistically, parents and children valued education as the way that one ‘becomes a real person’, respected in the community and by a future spouse, with correct moral and social behaviours. Education was seen as useful, though not really necessary, for a girl to get married and fulfil her expected future role as a wife and mother. Finally, many children enjoyed school, especially the socializing and play aspects of it, and parents spoke of their pride in seeing their children go to school.

Finally (Chapter 8), I considered whether and how households balanced the resources needed for education against the benefits to be gained from it, in order to arrive at decisions about a child’s education. I looked in turn at the decisions to enrol a child at the correct starting age or late, to enrol him or her at all, to drop out, to go to a private, government or NGO school, and how much to spend. Households with more resources tend to make decisions that result in the child staying in school longer, and household members attributed their decisions causally to possession or lack of resources. The long term financial status of the household, as indicated by its possession of assets, was the resource that was most consistently significant in explaining educational decisions. Wealthier parents, those with better social connections and with more education themselves, managed to keep children in school longer and spent more on private school fees and private tuition. Location was separately important, and I attribute this to the large variation in availability of private, government and NGO schools in different slums. Drop-out decisions were sometimes made by children themselves, especially for boys, and there was ambiguity as to how impulsive or strategic these decisions were; they appeared to be responses to boredom at school and difficulty doing school work, but also to a realization that reaching the upper stages of the school system, where the biggest advantages would kick in, might be an unattainable goal.

9.2. Limitations of this study and suggestions for future research

As described in section 4.2.10, the design of this study was based on a mixture of theoretical and pragmatic considerations. The survey design and administration was not perfect, but nevertheless yielded useful information and without evidence of systematic bias. A useful

extension of the study would have been to ask more about absent sons and daughters of household heads, to gain better understanding of how families might split during migration and whether there were large numbers of teenagers working away from their parental home. More careful distinction between different categories of work would have been helpful.

The overall design based on a mixture of quantitative survey evidence and qualitative analysis of more in-depth interviews was successful, bringing out many aspects of the children's and parents' perspectives that would otherwise have been obscure, although some alterations to the sequencing would have given more opportunity for the different types of data gathered to inform each subsequent stage of the research. Even with a mixed design, it is still difficult to understand fully how decisions are made, and several aspects of education decision-making, such as conflict within the household, are sensitive and unlikely to be revealed quickly. A more ethnographic approach, aiming at a deeper understanding of the identities and way of thinking of the participants, would supplement this kind of study well. Levels of child labour, for instance, were quite low in this study and in other surveys, at least among younger (primary-school aged) children, but I would hesitate to draw strong conclusions about this; child labour is illegal and parents are likely reluctant to admit to it, and some working children may live in the streets, with or without their parents, rather than in slum houses.

To what extent can these results be generalized to other slums in Dhaka, in other Bangladeshi cities, and in the rest of the world? As I noted in Chapter 4, I do not aim for total generalizability of these results to other historical and social contexts, but rather for transferability. The results show that aspects of a specific physical location – the number and types of school, the jobs that people do, their wealth and social position – all influence their education decisions. I have suggested what forms this influence would take, mostly with some fairly innocuous assumptions. For instance, I assume that the relatively high government school enrolment in the Lalbag study area can be to a large extent explained by the presence of a large government school within the slum. I would expect that other slums with a similar set of schools in and around them would have similar enrolment patterns, unless a large difference in the wealth or education of parents prevents this. Including a larger number of slums would have given greater confidence to this type of transfer, but would have greatly increased the practical difficulties. Another approach, given the availability of global positioning system (GPS) devices, would have been to record the exact location of schools and households in order to get a better idea of how location affects education decisions.

The focus of the study on slum households obviously leaves many other kinds of household out of the picture. Other marginalized urban groups such as children who live on the street, whether alone or with their parents, are excluded. But perhaps more importantly, the study excluded

middle class and rich households. I now think that research about poverty should not include only poor people as its participants. If it is accepted that poverty is about social relationships as well as material conditions, and more concretely that an inability to engage in the same educational strategies as the middle and upper classes is part of what keeps poor people poor, then interviewing only poor people provides a rather incomplete picture of the process and nature of poverty. Nevertheless, an incomplete picture is better than none at all, and I hope that this research can be complemented by studies asking similar questions about other social groups in Bangladesh.

On the other hand, it is doubtful whether many existing household surveys in developing countries fully cover slums and other marginalized urban groups. If so, they may be underestimating urban poverty (and therefore, overall poverty) and overestimating education enrolments. There is a need to address this both in the design of major household surveys and, where necessary, in conducting additional research to complement national surveys that may fail to cover all groups. For example, a recent survey in two cities in Vietnam (Haughton et al., 2010) over-sampled areas where there were thought to be high proportions of rural-urban migrants and poor people, and used weightings based on census data to achieve representative samples for the two cities. It is unfortunate in the present study that I cannot easily compare school enrolment rates in the study areas with elsewhere in Bangladesh, because the national enrolment data varies so much from one source to another (see section 3.1). Specialized surveys that focus on marginalized groups, but link to national censuses or other surveys to achieve a representative sample for the whole population (of a city, region or country), offer a way forward.

9.3. Reflections on conceptualizing education decisions

In conventional human capital models of education, households invest as much as they want in education, responding to the returns in the labour market. The present study does show how households in fact respond to opportunities in the labour market; in particular, the rapidly grown garment industry evidently has a large presence in people's minds when they think about education and children's futures, especially for girls. However, the results, both statistical and qualitative, also complicate that analysis in a number of ways. First, they make clear that households are sharply budget-constrained; they cannot invest as much as they would like to, and may withdraw children from school in response to an unexpected change in income. Second, non-financial as well as financial resources are used in this investment. Parents' education and the household's friends, relatives and migration status all matter for education decisions. Third, non-labour market benefits are clearly salient as well. The high intrinsic value that parents and children attach to education, as evidenced in interviews, would suggest that

they would invest *more* in education than the amount needed to get a good job, if they were able to. On the other hand there are also tangible disbenefits that can be associated with school, including physical punishment, boredom and loss of reputation; these may be particularly salient when a child him- or herself makes the decision to stop going to school. Fourth, there are high levels of risk and uncertainty in both the education system and labour markets. Households seem to follow a rough heuristic of starting with high aspirations for their children, both in education and career terms, investing as much as they can, and progressively revising them downwards as they are confronted with the reality. Fifth, different social groups do not have the same access to higher status jobs in Bangladesh; bribes and connections are often needed.

The kind of framework used in this thesis is broadly a useful one for analysing educational decision making. It is a positive framework focusing, in the first instance, on resources that households have rather than deficits that they suffer from. I have retained in some sense the classical economic assumption that households are rational and maximize valued outcomes. But I treat those valued outcomes as an object of enquiry rather than assuming they are purely financial (long term higher incomes). And I recognize the full range of financial and non-financial resources that households use to invest in education, and in each of which they may face binding constraints. I have included the rights that a household enjoys, and the resources it can access through social relationships, as properties of the household. This is a useful way to make sure we keep power and social position in mind when doing analysis that focuses on the individual person or household, as long as it is remembered that these rights and relationships can also (and perhaps more naturally) be seen as aspects of the whole society. A household can work to increase its wealth and, to some extent, its social position; but its right to education, for instance, is more likely to be recognized as part of the development of society, rather than through actions on the part of an individual household.

In contrast to many studies of ‘social capital,’ I consider a household’s social connections only as a property of the individual household, not of the wider community or society. The finding that households with more social connections (with relatives and friends living nearby, who belong to an organization, or who know a slum leader) invest more in education does *not* lead to the conclusion that, on aggregate, more social capital (however defined) would lead to more education. My interpretation is rather that households are placed in competition against each other by the limited availability of school places and other educational resources, and those with better social connections – who tend to be longer-established households – do better in this competition than the recent migrants. They are likely to be able to access resources such as temporary financial support or help with choosing a school through having more friends and relatives, while others are excluded from these resources.

This framework also helps to bring out how households are faced with genuine choices in education, but from a menu that is heavily constrained by their initial resources and social position. The accounts given in interviews seem to reflect real deliberation and calculation on the part of households, among whom even the better-off have had to make difficult decisions to allocate resources to education. This applies also to children's own decisions to leave school, although some may have later regretted it and felt their decision-making was too focused on the short term. As I acknowledged in Chapter 3, strategic decision-making is not free-floating and abstract but embedded in the "available historical repertoire" (De Haan and Zoomers, 2005, p. 41). Parents and children may make decisions without having to give much thought to it, because they follow "livelihoods styles" (De Haan and Zoomers, 2005) that make the correct course of action obvious or inevitable. Indeed, some of the participants' own descriptions of decisions may be post hoc justifications for action that was in fact taken without conscious deliberation. But the size of the sacrifices often made by parents, and the large variation in educational decisions even within a slum environment, and even after controlling for wealth, parents' education, and social connections, suggest that in many cases deliberation, with some degree of strategizing, must have been involved.

To what extent does this structure of costs, benefits, and constrained choices leave room for households to use education as a route out of poverty? Or is education merely the agent of social reproduction for the households studied here? There are elements of both. Keeping in mind that most of the households in the study are poor and most of the adults had little or no education, it is remarkable that some children were able to aspire to high levels of education – passing the secondary school certificate and going on to college or university – and had a reasonable hope of reaching those levels. It is not assured that they will go on to find well paid jobs, but at least they will be relatively well prepared if such jobs are available.

On the other hand, this group comprised only around one in four of the children in the sample and were disproportionately the children of wealthier parents. At least an equal sized group leave the school system with fewer than five grades of education, and will arguably be even more marginalized than their parents as they reach adulthood in an increasingly literate urban environment. Still, it is worth at least remembering that household characteristics only explain a limited proportion of the variation in children's educational outcomes, suggesting that the transmission of poverty from one generation to the next is not automatic. The importance of location for enrolment patterns also suggests that there is some scope for a better and more equitable supply of school places to even out the educational marginalization associated with poorer, recent migrants, and less educated family backgrounds.

9.4. Implications for policy and programmes

Although it would be easy to make a long list of areas in which the Bangladesh education system could improve, in this section I try to consider specifically those areas that the evidence from this study suggests should be priorities for raising educational outcomes for the urban poor.

First among these, it is clear that for many of the households in this study, there was a shortfall in government provision of school places. There was high demand for education among parents. Families living in slums will not only take education if it is available, but will also invest a substantial part of their own resources. But parents were generally unwilling for their children to travel far, and so the lack of a nearby government school meant relying on NGOs or the private sector, both of which had problems attached. Government spending on education is low in Bangladesh, and arguably needs to be increased in order to build more schools or extend existing ones without having detrimental effects on quality. But another major problem for expanding government provision is that there are no reliable estimates of the number of school-age children living in slum areas. Government statistical bodies need to ensure that censuses and household surveys go into slums so that they can assess the scale of need.

A second set of problems surrounds unwillingness of government and NGOs to build schools in slums, which are often illegal and vulnerable to eviction. Evictions and uncertain legal status are also a source of impoverishment and insecurity in the slums, which in turn have impacts on education. Government needs to recognize that evictions never improve the lives of slum dwellers and focus instead on providing adequate, affordable places for people to live (UN Millennium Project, 2005). Given the strong vested interests in evicting slums in order to claim valuable city centre land, local and international organizations need to advocate for forms of slum upgrading that do not contravene the rights of the people living there.

While the quality of NGO provision was often seen as good, there were not always easy paths from NGO elementary education to more advanced grades in the formal education system. Government-NGO coordination may already have improved somewhat since the time this study was conducted, but in areas where so many students are in NGO schools, it is clearly a priority that they should be able to continue their education afterwards if they are interested and able.

For many students in this study, late enrolment and early drop-out came together to curtail their education. Government and NGO efforts could focus on helping parents to enrol children in school at the correct age; ensuring all children's births are registered would help. For drop-out they need to recognize the twin problems of children losing interest in school or being

discouraged, and the direct and opportunity costs of school increasing, especially as children reach adolescence.

Improving households' financial status would have a reliably positive impact on school enrolment. This could be achieved, for example, through cash transfers, especially if focused on the very poorest households, among whom non-enrolment is most common. In the longer term, the financial status of slum households depends on continued growth in the economy – a hard condition to maintain given Bangladesh's reliance on the garments sector and vulnerability to global macroeconomic influences.

The garments sector appears to have played a positive role, especially in providing work opportunities for women from poor urban households, and has possibly encouraged parents to keep girls in school longer instead of getting them married at an early age. However, it is less clear what the long term health risks of this industry are relative to other types of work that are available to the urban poor, and whether people who go into the industry fully take on board these risks. Although the possibility of reaching supervisor level in a garments factory provides some incentive for children to stay in school longer, the ready availability of jobs for teenagers also provides an incentive for some to drop out.

Diversification of the urban economy and an industrial strategy that takes proper account of the levels of education available among the growing urban population, are important. Specifically, job growth that is polarized, creating a few jobs for the university-educated urban elite and a much larger number of low-skilled and low-paid jobs, will not be sufficient to help the urban poor escape poverty in the medium term. A strategy to create medium-skill jobs that can be done by (for instance) JSC or SSC graduates after training, would both raise the incentives to complete secondary school and ensure that the economy is able to make use of the large number of urban inhabitants for whom this level of schooling is attainable.

Although respondents were ambivalent about the value of primary education without secondary education for getting jobs, universal primary education is still a highly worthy, and so far unachieved, goal at the national level. Parents with primary education invest more in their children's education than parents with none, so if secondary education is not achievable in this generation, at least ensuring universal primary education would help it to happen in the next generation.

Current income affects current educational expenditure, suggesting that households may be limited in their ability to 'smooth' their spending but instead are vulnerable to unexpected changes in income, and the outcome is lower grade attainment among children from lower-income households. This suggests in turn a role for social safety net programmes to help

households deal with changes due, for example, to the loss of work or the illness, death, or absence of a wage earner.

Physical punishment has, since this study took place, been banned in schools in Bangladesh, though it is likely to take some time for this ban to come into effect given how widely accepted it is. As well as being a praiseworthy measure in itself this may encourage some children to stay in school who would otherwise tend to attend erratically or drop out altogether. Among parents, however, physical punishment seemed to be generally accepted and it is not clear that banning it would encourage them to send children to school. The perception of unfair treatment seemed to be more important to parents, regardless of what disciplinary measures are used. It is not easy to ensure that teachers will always act fairly and not discriminate against marginalized groups such as children from slums, but training could at least warn them of the adverse affects of discrimination, physical punishment, and humiliation.

I have noted that a minority of students – some 13% – use private primary schools (kindergartens or primary grades of private secondary schools). These are overwhelmingly drawn from the richest households. As well as spending money on tuition fees they also spend more on private tuition than students in other types of school. Although low in absolute terms, the fees are often a substantial part of their household incomes. Thus private schooling does not seem a promising route to improving access for the poorest 60% of children living in slums, unless the expenses they would face in such schools can be heavily subsidized at a cost comparable to that of providing additional government school places. For the very poorest even government schools are effectively too expensive, given the need for private tuition and their dependence on child labour.

The very widespread use of private tuition, even among the poorest, has to be addressed. Bray (2009) outlines policy options. Tuition was not entirely compulsory but there was often an element of compulsion, in that parents perceived a risk of their children not being able to complete lessons and pass tests without private tuition. This situation is damaging to equity because it introduces another channel through which better-off families can buy advantage for their children, and its wide acceptance may even be a disincentive for teachers to cover lessons fully in school, especially if the same teachers are giving private tuition to the same students. But the broader problem appears to be a system that relies on rote memorization for repetition in exams, and the inability of students to learn all of the required material within the school day, which is not surprising since (at primary grades) most students only spend 3-4 hours a day in school. This is coupled with a shortage of places at higher stages of the education system which provides strong incentives for households to try and distinguish themselves by spending more.

Bray (2009) notes that bans on private tuition in other countries have not been effective. Even assuming a ban was effective, it might improve equity but in itself would do nothing to address the broader problems, which go to the heart of educational tradition, teacher training, assessment, and curriculum design. An alternative would be for the government or NGOs to recognize the insufficiency of the formal school system in providing enough hours of teacher contact time for every student, and offer after-school classes or clubs to support learning for the poorest or for children of illiterate parents³¹. Education plans have aimed to move from double to single shifting. If this leads to an increase in students' time with teachers then it could also reduce dependence on private tuition. However, this measure will require a large increase in the number of teachers and classrooms.

³¹ Indeed, this has already been tried; the NGO PLAN International introduced the Community Learning Assistance Project in 1998, offering coaching before or after school hours in exchange for a nominal fee of Tk. 20-30 per month. Village adolescents who have passed SSC were trained as the teachers (GroundWork, 2002; Bray, 2009).

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Appendices

Appendix 1. Regression analysis results for Chapter 6

In order to test whether education of other household members can substitute for private tuition, I regress expenditure on a child's private tuition on the number of household members with more than primary education (reached grade 6 or higher), controlling for income and wealth (Table 45, model 1).

Table 45. Results of regression on spending on private tuition, for children in grades 1 to 5

	Model	1	2
children aged 0 to 15	-64.1	***	-63.8 ***
Q2 or Q3	103.4	*	111.8 *
Q4	284.4	***	283.4 ***
Q5	468.7	***	469.7 ***
income	10.5	*	0.0 **
number of household members with more than primary education	70.9	***	
education of most educated parent			21.2 ***
number of household members with more than primary education other than parents			14.7
constant	230.6		190.6
n	818.0		816.0
R ²	0.209		0.216

Note: the results shown are coefficients from linear (ordinary least squares) regression.

*Significance: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$*

Substituting time spent in private tuition for expenditure on private tuition as the dependent variable makes little difference. In a second model (Table 45, model 2) I add education of the most educated parent separately from the number of *other* household members with more than primary education. The latter variable is not significant, while parents' education is significant and has a positive relationship with spending on private tuition. Thus, the hypothesis that education of other household members could substitute for private tuition is not supported. Instead, there is support for the opposite conclusion, that more educated families spend more on private tuition.

I also test whether private tuition is cheaper for households with better social connections. The independent variable is the amount of time spent in private tuition (adjusted to make it annual) divided by annual spending on private tuition, in other words, the average hourly rate spent for private tuition. Results are presented in Table 46 (model 1). In fact, households with more social connections – specifically, relatives in Dhaka, who know a slum leader, and who have always

lived in Dhaka – spend more per hour of private tuition. This could be because those households are wealthier and so are able to spend more for higher quality. So in model 2 I try to control for this by adding wealth, income, and the number of children in the household to the regression. The result, though, is that the coefficients on social connection variables lose their significance, apart from knowing a slum leader, which remains positive and significant.

Thus, the hypothesis that having better social connections enables one to spend less on private tuition is not supported; if anything, having better social connections is correlated with spending more per hour. A limitation of this analysis is that I am not able to control for the quality of private tuition. Possibly, households with better social connections are able to mobilize more resources and use those to invest in higher quality, and more expensive, private tuition.

Table 46. Results of regression on spending per hour of private tuition

model	1		2	
belong to an organization	1.97	†	1.37	
relatives in area	0.22		0.14	
relatives elsewhere in Dhaka	2.63	*	1.64	
some/many friends	1.66		1.60	
know a slum leader	3.65	**	4.07	***
recent migrant	-1.66		-0.79	
non-migrant	2.56	*	2.10	†
children aged 0 to 15			-1.14	*
Q2 or Q3			3.11	†
Q4			4.95	**
Q5			5.19	**
income			0.27	*
constant	4.91		2.27	
n	360		360	
R ²	0.0822		0.1438	

*Significance: † p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001*

Appendix 2. Construction of asset indices

Two asset indices were constructed, AI1 for a larger sample (1603 households) but a small number of indicators (only six were available for the full sample), and AI2 for a smaller sample (483 households) but a larger range of indicators. The indices were constructed by running principal components analysis (PCA) in Stata, retaining only the first component (following Filmer and Pritchett, 2001).

AI1 is based on the following variables: number of chairs; number of tables; whether household has electricity; whether the household has a radio; whether it has a television; whether it has a mobile phone.

Using AI1 to create wealth quintile dummies, I find that nearly 40% of households are placed in the first ‘quintile’ while only 1% are placed in the second quintile. The index does not provide enough discriminatory power to distinguish the poorest 20% from the second poorest 20%. For regression analysis I group the second and third wealth quintiles together for ease of analysis, as sub-samples involving the second quintile are often too small to get significant or robust coefficients.

AI2 is based on the same variables plus: whether the dwelling is considered secure; whether it floods often or sometimes; whether the surrounding streets flood often or sometimes; material of the roof and walls; condition of dwelling; ownership of a watch, bicycle, motorcycle or scooter, rickshaw, cycle *vangari* (cart); whether every household member owns shoes.

In principle, PCA should only be applied when variables are numeric and the relationships between them are assumed to be linear. Kolenikov and Angeles (2009) recommend using either ordinal PCA, or polychoric PCA, in preference to the Filmer-Pritchett procedure, unless there is absolutely no information on ordering of categories in ordinal variables. However, applying either of these methods (using the Stata module *polychoric*) to AI1 makes very little difference to the ranking of households, as AI1 does not contain any ordinal variables. Applying them in the construction of AI2 does reclassify the wealth quintile of around 30% of households, although nearly all of these are shifted to neighbouring quintiles, and the correlation between the Filmer-Pritchett index and the two indices recommended by Kolenikov and Angeles is .94 – .95 in each case. For several of the regression models described in Appendix 4 (specifically 8.4.1, 8.4.4, 8.4.5, 8.6.1, and 8.6.5), I also estimated them using the alternative wealth index based on ordinal PCA, finding little difference in the results. Although coefficients are altered, their significance is largely the same, and the overall pattern of results does not appear to depend on the wealth index chosen. (The exception is that there is some difference between results using AI1 and AI2; these differences are reported in Appendix 4.)

(Further discussion of the two indices is in the main text, Chapter 5).

Appendix 3. Occupational categories

Forty-three occupational categories are included in the original survey. I have reduced these to ten categories as follows:

1. Domestic worker: includes nanny and domestic worker
2. Rickshaw puller
3. Factory work: includes garments worker and industrial worker
4. Day labour and similar: includes ferry worker, ferry person, day labourer, van driver and transport worker
5. Self-employed: includes farmer, tea seller, vegetable seller, small business, tailor, cottage industry worker, handicraft worker, and fisherman
6. Sweeper
7. Low-status employee: includes cook, waiter, overseas recruitment agency, and guard
8. High status employee: includes teachers, lecturers, non-governmental officer, NGO officer, car driver, executive, peon, medium business, big business, export/import business, officer and health worker
9. Housewife
10. Other: includes stock holder, hairdresser, warehouse owner, rag-picker and those categorized as 'other' in the original survey

A further simplified set of categories groups categories 2, 4 and 6 together as manual workers; and 1, 7 and 10 together as 'other'.

Appendix 4. Regression analysis for Chapter 8

In the regression analysis for Chapter 8 I use several different indicators of educational decisions and outcomes, following approximately the same pattern in each case. I start with a simple model that includes only the child's age and sex, and a set of wealth dummies. I also control for the number of children aged 0 to 15 on the basis that the household's resources must be shared between these children's education (see section 2.4.3). I then progressively add variables representing different types of resource that the household possesses. First, I add an indicator of parents' education and a dummy for whether the household is female-headed. Second, I add variables representing the household's migration status and social connections. Third, I add the household's income to test if this is significant even controlling for wealth. Fourth, I add dummies for slum location. Fifth, I add a dummy for whether the child is in good health and his or her height for age. Finally, where appropriate, I add a set of dummies representing parents' and children's expectations and hopes regarding the child's future career.

These are only available for 11-15 year olds so cannot be compared to the regressions based on other age groups. Table 47 describes all of the explanatory variables.

The strategy is thus to start from a simple model and progressively add groups of variables, keeping those which improve the explanatory power of the model and whose coefficients are significant, and dropping those that do not seem to add anything to the model. (However, I keep variables where there is a prior expectation that their inclusion is necessary for the correct interpretation of coefficients on other explanatory variables. For instance, the number of children aged 0 to 15 is kept in all models because the household's resources must be shared among its members; so this variable needs to be included for the coefficients on the other variables to be meaningful). Moving from simple to more complex models in this way also allows me to check how adding one variable or group of variables affects the coefficients or significance of the others, and thereby to separate out the likely impacts of explanatory variables (which often have some degree of multicollinearity; for instance wealth and parents' education are highly correlated).

Table 47. Explanatory variables used in regression analysis

label in tables	type of variable	description	notes	mean	s.d.
age	continuous	the child's age	Children aged 4-15	8.92	3.21
sex	dummy	the child's sex	0 = male; 1 = female	0.498	
Q2 or Q3	dummy	household is in 2 nd or 3 rd wealth quintiles	Based on AI1; I also check results using AI2. Baseline is Q1. See Appendix 2.	0.196	
Q4	dummy	household is in 4 th wealth quintile	„	0.204	
Q5	dummy	household is in 5 th (richest) wealth quintile	„	0.252	
children aged 0 to 15	continuous	number of children aged 0 to 15 in the household		2.51	1.09
parents' education	continuous	highest grade reached by the most educated parent	0 for never enrolled; 0.5 for enrolled but no grade completed. I also check results using grade reached by mother and grade reached by father	3.26	3.53
female headed	dummy	household head is female		0.113	
belong to an organization	dummy	household head or primary caregiver belongs to any organization (credit group, woman's organization, or other)		0.226	
relatives in area	dummy	do you have relatives in this area?	0 for no, 1 for yes	0.781	
relatives in Dhaka	dummy	do you have relatives elsewhere in Dhaka?	„	0.765	
some/many friends	dummy	how many friends do you have in this area?	0 for few/none, 1 for some or a lot	0.803	
know a leader	dummy	do you know any slum leader?	0 for no, 1 for yes	0.695	

recent migrant	dummy	primary caregiver was born outside Dhaka city and moved to Dhaka with the last 10 years	0.414	
non-migrant	dummy	primary caregiver was born in Dhaka	0.144	
income	continuous	monthly household income, in thousands of taka	6.43	4.21
Korail	dummy	household is in the Korail study area	baseline is the Cholonika study area	0.218
Lalbag	dummy	household is in the Lalbag study area	„	0.283
Begunbari	dummy	household is in the Begunbari study area	„	0.228
good health	dummy	how is the health of the child?	1 for good or very good, 0 for mediocre, sometimes sick or always sick	0.659
height for age	continuous	number of standard deviations by which a child's height differs from the median height for his or her age	0.012	1.00
Exp/hope: factory	dummy	parents expect that child will work in a factory	alternative versions are based on (b) the child's expectations and (c) the child's hopes. See Appendix 3 for occupational categories.	
Exp/hope: self-employed	dummy	parents expect that child will take self-employed work	„	
Exp/hope: high status	dummy	parents expect that child will take high status employment	„	
Exp/hope: housewife	dummy	parents expect that child will become a housewife	„	
Exp/hope: other	dummy	parents have other expectations for the child's future occupation	„	

1. Enrolment at the right age

The first set of regressions concern enrolment at the right age, versus late enrolment or non-enrolment. The dependent variable **edstat1c**, has three possible values: 0 for never enrolled; 1 for children who are in school or who have dropped out but who enrolled at an age above 6; and 2 for children who are in school or who have dropped out and who enrolled at 6. The calculation depends on parents' reports of the age at which children went to school, which may be subject to recall errors as well as misreporting due to embarrassment or not knowing children's ages. The focus is on children aged 6-10, in an attempt to isolate the issue of enrolment at the right age. Children who are non-enrolled at this age are a mixture of those who will in future enrol (late enrollers) and those who will never enrol (never enrollers).

I carry out a number of multinomial logistic regressions. Model 8.1.1 includes age, sex, wealth quintile dummies, and the number of children aged 0 to 15 in the household. There are significant differences by wealth in the expected direction: children from poorer families are more likely to be never enrolled and to have been enrolled but overage. Next (model 8.1.2) I add

the educational level of the most educated parent and a dummy for whether the household is female-headed. Education is significant in explaining never-enrolment but not in explaining overage enrolment. Wealth dummies remain significant.

Model 8.1.3 adds several variables pertaining to social connections: whether household members belong to any kind of organization; whether they have relatives living in the same slum; whether they have relatives living elsewhere in Dhaka; whether they have some or many friends, as opposed to few or none; whether they know a local leader; a dummy for households where the primary caregiver migrated 10 years ago or more recently; and a dummy for households where the primary caregiver was born in Dhaka city (the baseline for migration status is therefore households where the primary caregiver migrated more than 10 years ago).

Having some or many friends, knowing a slum leader, and not being a recent migrant, are all associated with significantly lower probability of never-enrolment; having some or many friends or knowing a slum leader is also associated with significantly lower overage enrolment. However, the inclusion of these variables greatly reduces the sample size (because these questions were only asked to households containing at least one 11-15 year old). Consequently, I note their significance but do not include them in the subsequent models.

Model 8.1.4 adds household income; however its coefficient is not significant and does not improve the model (as indicated by the Akaike and Bayesian information criteria), so I omit income from the subsequent models. Next (model 8.1.5) I add dummies for each slum.

Controlling for wealth, Korail and Begunbari have significantly higher never-enrolment than Lalbag and Cholonika. Korail, Begunbari and Cholonika all have significantly higher overage enrolment than Lalbag. In model 8.1.6 I add children's age and height-for-age. Children who are taller for their age are significantly less likely to be never-enrolled or to enrol overage. Children who are in good health are significantly less likely to be never-enrolled. Finally (models 8.1.7 and 8.1.8) I conduct separate regressions for girls and boys. The results are difficult to interpret as there is no longer a clear and significant relationship between wealth and enrolment outcomes. Parents' education, and child's good health, appear to be significant for girls but not for boys. A joint significance test on the interaction terms between sex and other variables suggests that, for both never-enrolment and overage enrolment, separate models are warranted ($p < 0.05$ in each case).

To check whether the choice of explanatory variables affects the results, I repeat model 8.1.3 and 8.1.5 using the asset index AI2 instead of AI1 (see Appendix 2). Wealth results are no longer significant, although this may be due to the reduced sample size for which the AI2 was available. In 8.1.5 the coefficients on slum dummies become larger when using AI2, suggesting a greater relative importance of location rather than wealth.

I also repeat 8.1.3 and 8.1.6 using father's education and then mother's education instead of the education of the most educated parent. The difference is that in model 8.1.3, mother's education is significant for explaining non-enrolment, whereas this is not the case in this model when the education of the most educated parent is used. In 8.1.6, education is significant if mother's education or the most educated parent's education is used, but not if father's education is used.

Multinomial logistic regression involves making the assumption of independence of irrelevant alternatives, that is, that removing one of the options would not alter the relative conditional probabilities of the other options. I test whether IIA holds using a Hausman-McFadden test (Hausman and McFadden, 1984) with the Stata command *mlogtest* (Long and Freese, 2005). Only in the first model (8.1.1) is the assumption found to be violated; for the others it seems that the inclusion of additional explanatory variables captures the correlation of probabilities across categories.

Table 48. Multinomial logistic regression results for enrolment at the right age (part 1)

Model	8.1.1		8.1.2		8.1.3		8.1.4	
	(N)	(O)	(N)	(O)	(N)	(O)	(N)	(O)
age	0.73 ***	1.81 ***	0.73 ***	1.80 ***	0.81	1.91 ***	0.73 ***	1.81 ***
sex	0.45 ***	0.84	0.46 ***	0.85	0.50 †	0.78	0.45 ***	0.84
children aged 0 to 15	1.31 **	1.03	1.26 *	1.02	1.46 *	0.98	1.27 *	1.03
Q2 or Q3	0.54 *	0.77	0.56 *	0.79	0.68	0.63	0.59 *	0.81
Q4	0.21 ***	0.38 ***	0.24 ***	0.40 ***	0.44	0.47 †	0.26 ***	0.40 ***
Q5	0.10 ***	0.43 ***	0.12 ***	0.45 **	0.16 **	0.33 **	0.15 ***	0.51 **
parents' education			0.90 **	0.97	0.94	0.99	0.91 **	0.97
female headed			0.55 †	0.77	0.35 †	0.55	0.53 †	0.76
belong to an organization					1.39	1.69		
relatives in area					0.98	1.44		
relatives in Dhaka					1.17	1.29		
some/many friends					0.34 *	0.36 *		
know a leader					0.27 **	0.27 **		
recent migrant					2.21 *	1.17		
non-migrant					0.56	0.45		
income							0.95	0.96
Korail								
Lalbag								
Begunbari								
good/very good health								
height for age								
N	820		818		330		817	
Pseudo R ²	.148		.154		.227		.158	

Note: The reported results are relative risk ratios, showing the ratio of the chance of being never-enrolled (N) to that of being enrolled at the right age, and the ratio of the chance of being enrolled overage (O) to that of being enrolled at the right age, respectively. The age group is 6-10.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Table 49. Multinomial logistic regression results for enrolment at the right age (part 2)

	8.1.5		8.1.6		8.1.7 (male)		8.1.8 (female)	
	(N)	(O)	(N)	(O)	(N)	(O)	(N)	(O)
age	0.73 **	1.81 ***	0.69 ***	1.81 ***	0.81	1.87 ***	0.55 ***	1.90 ***
sex	0.44 ***	0.84	0.44 **	0.84				
children aged 0 to 15	1.26 *	1.00	1.21 †	1.00	1.23	1.02	1.15	0.89
Q2 or Q3	0.65	0.86	0.63	0.88	0.34 *	0.49 †	1.41	1.85
Q4	0.33 **	0.47 **	0.38 **	0.50 **	0.42 †	1.04	0.49	0.20 ***
Q5	0.17 ***	0.59 *	0.16 ***	0.58 *	0.17 **	0.52 †	0.14 **	0.61
parents' education	0.90 **	0.97	0.92 *	0.98	0.84 **	0.96	0.97	0.99
female headed	0.82	0.91	0.57	0.86	0.34 †	0.77	1.04	0.99
belong to an organization								
relatives in area								
relatives in Dhaka								
some/many friends								
know a leader								
recent migrant								
non-migrant								
income								
Korail	3.14 ***	0.93	4.04 ***	0.90	4.52 **	1.70	4.16 **	0.49 †
Lalbag	0.55	0.49 **	0.64	0.50 **	0.33 †	0.72	1.35	0.35 **
Begunbari	4.36 ***	1.21	8.01 ***	1.30	9.71 ***	2.02 †	8.77 ***	1.02
good/very good health			0.50 **	0.88	0.43 *	0.65	0.52 †	1.07
height for age			0.49 ***	0.78 *	0.43 ***	0.70 *	0.52 ***	0.87
N	818		769		394		375	
Pseudo R ²	.190		.232		.252		.264	

Note: The reported results are relative risk ratios, showing the ratio of the chance of being non-enrolled (N) to that of being enrolled at the right age, and the ratio of the chance of being enrolled overage (O) to that of being enrolled at the right age, respectively. The age group is 6-10.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

2. Never-enrolment

For the set of regressions concerning never-enrolment of older children, the dependent variable, **edstat2**, has two possible values: zero for never-enrolled, and one for school-going or drop-out. I conduct regressions on children aged 11-15, on the basis that never-enrolled 6-10 year olds

may still enrol at a later date. The aim is to compare children who have never enrolled and likely will never enrol, to those who have enrolled at some stage, even if they since dropped out.

As before, model 8.2.1 includes age, sex, wealth quintile dummies, and the number of children aged 0 to 15 in the household. Model 8.2.2 adds parental education and whether the household is female-headed. Model 8.2.3 adds the variables pertaining to social connections. One of these (**know a leader**, $p < 0.05$) is significant. As before, I note this but exclude the social variables from the subsequent models in order to use the maximum possible sample size.

Model 8.2.4 adds household income. This is also not significant and does not improve the model so is dropped. Model 8.2.5 adds dummies for the different slum areas. The odds of never enrolling are lowest in Lalbag, followed by Cholontika, then Begunbari, then Korail. The differences reach significance when comparing Lalbag to Begunbari, Cholontika to Korail, or Lalbag to Korail. Model 8.2.6 adds the dummy for child's health and their height for age. These were not significant and so are dropped.

When interaction terms between each variable and sex are added (not reported), the interaction terms are not jointly significant, suggesting that there is no need to model the decision separately for boys and girls.

Model 8.2.7 adds dummies for parents' occupational expectations for their children. There is no attempt to establish causation here; the results simply demonstrate that parents have very different expectations about what never-enrolled children will do when they are older, compared to children who have spent at least some time in school.

I test the results with different wealth dummies (AI2 instead of AI1) and different parental education variables (mother's and father's education, instead of the education of the most educated parent) with model 8.2.5. I find no major differences, except that the effect of mother's education appears to be larger than father's education; and including mother's education makes one of the wealth dummies significant. This leaves some ambivalence as to whether wealth is separately significant from location and parents' education.

Table 50. Logistic regression results for never-enrolment

Model	8.2.1	8.2.2	8.2.3	8.2.4	8.2.5	8.2.6	8.2.7
age	0.91	0.96	0.94	0.96	0.95	1.00	0.99
sex	1.51	1.97 *	2.06 *	1.98 *	1.71	1.61	1.23
children aged 0 to 15	0.84	0.85	0.83	0.84	0.83	0.87	0.89
Q2 or Q3	1.90	1.98 †	1.55	1.93	1.97	2.13 †	2.00
Q4	2.24 *	1.92	1.19	1.85	1.23	1.38	0.85
Q5	10.17 ***	6.13 **	4.16 *	5.75 **	3.22 †	3.40 †	2.25
parents' education		1.35 **	1.30 **	1.35 **	1.34 **	1.32 **	1.31 **
female headed		0.26 ***	0.29 **	0.26 ***	0.19 ***	0.19 ***	0.21 ***
belong to an organization			0.70				
relatives in area			1.94 †				
relatives in Dhaka			1.40				
some/many friends			1.03				
know a leader			2.02 *				
recent migrant			0.68				
non-migrant			0.92				
income				1.02			
Korail					0.30 **	0.28 **	0.29 *
Lalbag					2.16	1.79	1.17
Begunbari					0.38 *	0.29 *	0.41 †
good/very good health						0.88	
height for age						1.07	
PE: factory							4.73 **
PE: self-employed							5.22 *
PE: high status							28.76 ***
PE: housewife							8.68 **
PE: other							3.60
N	608	606	565	606	606	560	550
Pseudo R ²	.081	.178	.213	.179	.226	.234	.296

Note: The results shown are the odds ratios of being never-enrolled, compared to being currently enrolled or enrolled in the past. PE = parents' expectations (baseline category is manual work). The age group is 11-15.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

3. Expenditure

For this set of regressions, the dependent variable is annual non-food educational expenditure. Some expenditure items are given for a one-week time period, others for one term, and others for one year. These are made equivalent using the assumption of 38 weeks and three terms in one year. The regression is carried out at the individual child, rather than household level.

Model 8.3.1 uses age, wealth quintile dummies, and the number of children aged 0 to 15 in the household, as the explanatory variables. Model 8.3.2 adds parents' education and a dummy for whether the household is female-headed or not.

Model 8.3.3 adds the variables pertaining to social connections. An additional variable **secure**, based on the household having answered yes when asked whether they felt secure from eviction, was also included in some specifications. But the result was counter-intuitive (less secure households spent more) and given that answering yes to this question was strongly associated with living in one particular slum, I decided to omit this variable for now; however it returns in later specifications where slum dummies are also included. Omitting or keeping **secure** did not alter any of the signs of the coefficients on the other variables, and only slightly altered the magnitude and significance of the other coefficients. Using different configurations of the variables representing the number of friends the household has and its migration status, did not alter the signs of the coefficients on the other variables.

In an alternative specification in which **non-migrant** was omitted, the coefficients on **relatives in area** and **some/many friends** both become significant at the 5% level. When **non-migrant** is included, these coefficients narrowly fail to reach significant ($p = 0.069$ and $p = 0.057$, respectively).

Model 8.3.4 adds household monthly income. I also test with a censored version of the income variable which excludes several outliers in excess of Tk. 20,000 per month. This does not affect the results in any distinguishable way.

Model 8.3.5 adds dummies for the four study areas. Cholonika is used as the baseline, and dummies are included for Korail, Lalbag, and Begunbari. Only the Lalbag dummy is significant. Comparing coefficients, there were significant differences as follows: between Lalbag and Korail, between Lalbag and Begunbari; but not between Korail and Begunbari. I also test adding **secure**, the dummy for whether the household felt secure from eviction, but it is not significant when the slum dummies are present and does not greatly alter the coefficients on the other variables.

Model 8.3.6a-c add dummies for (a) parents' occupational expectations, (b) children's occupational expectations, and (c) children's occupational aspirations. Here I use the reduced

set of occupational categories described in Appendix 3. For all three variables the results are similar: expecting, or aspiring, to become a high status employee is associated with higher expenditure compared to all the other categories; and none of the other categories differ from each other. An exception is in 6b, where expenditure was significantly higher for the 6 children who aspired to be housewives, as well as for those who aspired to be high status employees. The results were similar whether or not slum dummies were included.

Table 51. Results of linear regression for annual educational expenditure (in taka)

Model	8.3.1	8.3.2	8.3.3	8.3.4	8.3.5	8.3.6a	8.3.6b	8.3.6c
age	165.0 *	207.1 **	286.0 **	259.7 **	266.7 **	230.1	13.8	232.6
sex	334.6	248.7	-128.6	-188.8	-173.0	528.6	-502.1	622.9
children aged 0 to 15	-464.8 ***	-366.4 ***	429.0	328.4	-330.6 *	53.4	-14.9	130.7
Q2 or Q3	1018.9 **	893.6 **	1345.3 **	1089.8 *	146.7	576.6	-145.7	543.5
Q4	2897.1 ***	2494.1 ***	3001.5 ***	2591.7 ***	883.7 †	1909.4 **	1103.1 †	1992.5 **
Q5	4781.1 ***	4160.9 ***	-355.2 *	-388.5 *	2118.6 ***	3311.5 ***	3088.3 ***	3921.3 ***
parents' education		266.4 ***	259.7 ***	247.5 ***	238.7 ***	293.8 ***	51.1	319.5 ***
female headed		132.0						
belong to an organization			-563.8	-574.8	-331.3	21.7	309.6	-113.4
relatives in area			751.5 †	602.3	333.6	505.8	-22.0	353.5
relatives in Dhaka			-226.2	-501.8	-346.9	-192.4	-535.6	-209.8
some/many friends			800.5 †	919.9 *	901.8 *	1074.5 *	288.1	981.7 †
know a leader			148.1	137.0	-104.8	434.5	361.4	448.7
recent migrant			-1242.1 **	-1187.4 **	-792.7 *	-477.6	-290.5	-499.5
non-migrant			1631.3 **	1671.1 **	876.5	1354.5 *	3103.4 **	2007.3 **
income				209.3 ***	193.9 **	127.8 *	-75.5	50.1
Korail					450.3	188.1	-463.7	-199.9
Lalbag					2127.3 ***	3334.6 ***	2864.9 **	3643.5 ***
Begunbari					278.4	239.5	-659.5	-26.6
Exp/hope: factory						657.8	1564.4 †	-359.1
Exp/hope: self-employed						-10.8	639.4	-557.4
Exp/hope: high status						3594.8 ***	3076.0 ***	1935.6 †
Exp/hope: housewife						1017.3	4918.4 **	-563.8
Exp/hope: other						1072.8	316.2	-66.5
constant	108.9	-970.4	-1169.2	-1642.8	-2164.2 †	-7197.8 **	-30.1	-5970.0 *
age range	6-11	6-11	6-11	6-11	6-11	11-15	11-15	11-15
N	1007	1005	470	470	470	544	285	540
R2	0.255	0.305	0.346	0.365	0.389	0.540	0.436	0.501
Adjusted R2	0.250	0.299	0.326	0.344	0.365	0.520	0.386	0.479

Note. The results shown are linear coefficients using ordinary least squares. The expectations/hope variables are based on parents' expectations in 8.3.6a, children's expectations in 8.3.6b, and children's hopes in 8.3.6c.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Given the results of regression 8.3.5 and in the descriptive analysis in Chapter 5 suggesting a significant difference between Lalbag and the other slum areas, I test whether different models

might apply by separating the Lalbag sub-sample from the rest. The results suggest that assets are not a good predictor of expenditure in Lalbag; the middle wealth quintile (calculated for the Lalbag sub-sample) spends more than the wealthiest. The results for the other slums are not greatly altered by removing Lalbag from the sample, except that the wealth quintiles become more important in explaining expenditure.

Finally I test whether there are differences in expenditure patterns according to the child's sex. When a dummy for sex is added to the above models, its coefficient is not significant and it does not much alter the other coefficients. This reflects similar average expenditure levels on boys and girls. However, I also test models 8.3.4 and 8.3.5 separately for boys and girls. The results are quite different, suggesting that although average expenditure levels are similar, the determinants of expenditure may be quite different for boys and girls. For both boys and girls, parents with higher levels of education, and those in the Lalbag study area, spent more. But for boys, wealth, friends, and migration status are significant, whereas for girls, income is significant, but wealth is only significant in comparing the poorest and richest quintiles.

When parents' expectations are added to separate regressions for boys and girls, the expectation of high status employment was associated with higher expenditure for both boys and girls. For boys, there were no significant differences in expenditure between other occupational expectation categories. But for girls, the expectation that they would work in a factory or become housewives was associated with significantly lower expenditure than the expectation of high status employment; but significantly higher expenditure than the small number of girls whose parents had other occupational expectations (manual work or self-employment) for them. When children's aspirations are added instead of parents' expectations, only the aspiration to high status employment was significant, and this was the same for both boys and girls.

For each of the above models I also test them using the second asset index (AI2) and for children aged 6 to 15 instead of 6 to 11. I also check model 8.3.1 using different parental education variables (years of schooling of most educated parent, father's years of schooling, mother's years of schooling). In most cases I find no major differences. For model 8.3.3 there was a significant difference between quintiles 1 and 3 using AI2 but not AI1. Households with more children spent significantly less than households with fewer children when AI1 was used as the wealth index but not AI2.

4. School type

I first constructed a simplified and combined indicator of primary school type with three values: 0 for government and government-supported schools (GPS, RNGPS, government-supported madrasas, and community schools); 2 for NGO schools; and 3 for fully private schools (kindergartens and primary sections of secondary schools). I include both children who are

currently in grade 1-5, and those who dropped out from grade 1-5 (unfortunately the primary school type is not available for children who reached secondary grades).

As before, I start with a simple model where the explanatory variables are the child's sex, wealth quintile dummies, and the number of children aged 0 to 15 in the household (model 8.4.1).

Model 8.4.2 adds parents' education and belonging to a female-headed household; but the latter is not significant and is dropped from subsequent models.

Model 8.4.3 adds the social connection variables. The problem here is that the average age in model 8.4.3 is higher than in the previous models, because the social connection questions were only asked to households containing at least one 11-15 year old. If (for example) NGO schools admit more overage children than other school types, then the model may underestimate the effects of social connection variables on the probability of entering NGO schools (since some of the right-age students have been removed from the sample). Consequently I take note of the problem in reporting this model's results, and do not use the social connection variables in subsequent models (which allows me to use a larger sample in subsequent models).

Model 8.4.4 includes sex, wealth quintiles, number of children aged 0 to 15, parents' education, and household income. As income is significant I retain it in subsequent models. Model 8.4.5 adds dummies for the different slum areas. I also conduct Wald tests between the coefficients on the slum dummies to establish which pairs of slums have significant differences.

I also try adding interaction effects between sex and the other explanatory variables (for model 8.4.5). However I am not able to reject the hypothesis that these interaction effects are jointly zero. Thus there is no need to have separate models of school type determination for boys and girls.

Replacing the wealth index AI1 with AI2 somewhat alters the findings. In model 8.4.3, wealth becomes more important for the likelihood of enrolment in an NGO, and migration status becomes less important. Wealth becomes less important for enrolment in private school. This suggests that the migration dummies may be picking up on some aspects of wealth that are not captured in AI1. In 8.4.4 and 8.4.5 changing the wealth index makes fewer variables significant, which is likely due to the reduction in sample size. The signs of significant coefficients remain the same as when AI1 is used.

Replacing the parental education variable with father's or mother's education makes little difference, except that in model 8.4.3, mother's education is not significant for enrolment in a private school, and in 8.4.5, father's education is not significant for enrolment in an NGO school.

As in model 8.1.1-8.1.4, multinomial logistic regression involves making an assumption of independence of irrelevant alternatives (IIA). I test whether IIA holds for each model using Hausman-McFadden tests. Only for model 8.4.2 is the hypothesis of IIA rejected. In other cases the explanatory variables appear to capture any correlation of probabilities across categories.

Clearly, location is important for choice of school type, and it might be questioned whether some choices are completely excluded by the lack of options in one area. However, it should be noted that there were at least *some* students in each broad school type (government, NGO or private) in each slum, indicating some degree of choice between the three categories.

Nevertheless, I also test model 8.4.5 separately for each slum location (results not reported but available upon request). Few of the coefficients are significant in the resulting models. This may be due to loss of power, as the sub-samples within each slum are quite small (under 300), and some of the category groups are very small – e.g. only 7 children were in NGO school in Begunbari; only 9 children were in private schools in Korail. The wealthiest quintile were more likely than others to go to private school in Cholonika; children of more educated parents in Lalbag were more likely to be in private school. Girls in Korail were more likely than boys to be in NGO schools.

Table 52. Results of multinomial logistic regression for school type

Model	8.4.1		8.4.2		8.4.3		8.4.4		8.4.5	
	(ngo)	(pri)	(ngo)	(pri)	(ngo)	(pri)	(ngo)	(pri)	(ngo)	(pri)
sex	1.34 *	0.90	1.34 *	0.84	1.33	0.53 †	1.34 *	0.84	1.42 *	0.85
children aged 0 to 15	0.92	0.81 *	0.91	0.84 †	0.94	0.75 †	0.93	0.83 †	0.93	0.83 †
Q2 or Q3	0.48 ***	1.90	0.48 ***	1.93	0.58 *	0.90	0.52 **	1.90	0.76	2.15 †
Q4	0.49 ***	4.35 ***	0.52 **	3.80 ***	0.93	3.23 *	0.62 *	3.75 ***	0.95	4.05 ***
Q5	0.28 ***	7.41 ***	0.31 ***	6.08 ***	0.50 *	4.00 **	0.40 ***	5.64 ***	0.66	6.61 ***
parents' education			0.93 **	1.14 ***	0.97	1.13 **	0.93 **	1.13 ***	0.94 *	1.13 ***
female headed			0.97	0.78						
belong to an organization					2.03 **	2.98 **				
relatives in area					1.30	1.04				
relatives in Dhaka					0.44 **	0.88				
some/many friends					1.35	2.33 †				
know a leader					0.83	0.49 †				
recent migrant					1.67 *	0.35 *				
non-migrant					0.29 *	1.27				
income							0.88 ***	1.02	0.96	1.03
Korail									0.51 **	0.19 ***
Lalbag									0.06 ***	0.33 ***
Begunbari									0.02 ***	0.24 ***
N	984		981		568		980		980	
Pseudo-R2	0.073		0.092		0.134		0.104		0.259	

Note. The results shown are relative risk ratios, showing the ratio of the chance of being in an NGO school (ngo) to that of being enrolled in a government or government-supported school, and the ratio of the chance of being in a private school (pri) to that of being enrolled in a government or government-supported school.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

5. Drop-out

Here, the dependent variable is zero for a respondent who is dropped out from school and one for a respondent who is currently school-going; thus never-enrolled children are ignored here.

The age range is 6-15, except when examining occupational expectations and aspirations, which data is only available for 11-15 year olds.

In model 8.5.1 the explanatory variables are sex, age, the number of children aged 0 to 15 in the household, and wealth quintile dummies. In model 8.5.2 I add parental education and belonging to a female-headed household. The latter is not significant and is dropped. In model 8.5.3 I add

the social connection variables. The variables for migration status (**recent migrant** and **non-migrant**) are significant so are kept in subsequent models. Model 8.5.4 adds income; this is not significant and does not improve the model, judging by the information criteria, so is dropped. In model 8.5.5 I add dummies for the slum areas. I test for interaction effects between sex and other variables, and am unable to reject a hypothesis that they are jointly zero, so there is no need for separate models for boys and girls. In model 8.5.6 I add the child's height-for-age and whether he or she is in good health. In models 8.5.7a, b, and c, I add dummies for occupational expectations and aspirations (**parent's expectations** in 8.5.7a, **child's expectations** in 8.5.7b, and **child's hope** in 8.5.7c). Since the results are largely similar – the expectation or aspiration of high status employment is associated with lower drop-out – in the main text I report only 8.5.7a. One difference is that in model 8.5.7c an aspiration to work in manual labour is, puzzlingly, associated with lower drop-out than other occupational aspirations (apart from high status employment).

Replacing the wealth variables (using AI2 instead of AI1) makes little difference to the results, except in model 8.5.6, where wealth effects become larger, parents' education becomes significant, and location becomes less important. Substituting mother's or father's education for the parental education variable makes no difference to the results.

Table 53. Results of logistic regression for drop-out

Model	8.5.1	8.5.2	8.5.3	8.5.4	8.5.5	8.5.6	8.5.7a	8.5.7b	8.5.7c
sex	1.02	1.08	0.92	1.08	0.84	0.69	0.92	0.63	0.97
age	0.55 ***	0.55 ***	0.53 ***	0.54 ***	0.51 ***	0.52 ***	0.48 ***	0.41 ***	0.45 ***
children aged 0 to 15	0.90	0.91	0.86	0.91	0.89	0.91	0.98	0.92	0.92
Q2 or Q3	1.65 *	1.68 *	1.53	1.61 *	1.48	1.59	1.97 †	2.23 †	1.86 †
Q4	5.36 ***	4.88 ***	3.68 ***	4.41 ***	3.28 ***	3.68 ***	3.72 **	5.18 **	3.87 **
Q5	10.74 ***	9.45 ***	6.26 ***	7.94 ***	4.81 ***	5.94 ***	5.88 ***	3.75 *	5.61 ***
parents' education		1.10 **	1.04	1.10 **	1.06	1.05	1.02	0.98	1.01
female headed		0.76							
belong to an organization			1.47						
relatives in area			1.78 *		1.24				
relatives in Dhaka			0.80						
some/many friends			0.98						
know a leader			1.20						
recent migrant			0.49 **		0.55 *	0.52 **	0.51 *	0.46 †	0.51 *
non-migrant			7.56 ***		4.42 *	4.56 *	3.79 †	11.51 †	5.88 *
income				1.06 †					
Korail					0.87	0.84	0.84	0.53	0.80
Lalbag					4.29 ***	5.14 ***	4.81 **	2.06	6.20 ***
Begunbari					0.51 *	0.39 **	0.56 †	0.08 ***	0.55 †
good health						0.76			
height for age						0.67 **			
Exp/hope: factory							1.15	1.85	0.17 *
Exp/hope: self-employed							0.81	0.80	0.08 **
Exp/hope: high status							4.98 *	8.85 *	0.47
Exp/hope: housewife							1.03	7.79	0.08 **
Exp/hope: other							2.93	0.98	0.44
age range	6-15	6-15	6-15	6-15	6-15	6-15	11-15	11-15	11-15
N	1273	1270	793	1269	793	738	502	248	497
Pseudo R ²	0.3059	0.319	0.3371	0.3213	0.3744	0.3835	0.4104	0.3928	0.414

Note: The results shown are the odds ratios of having dropped out from school, compared to being currently enrolled. The expectations/hope variables are based on parents' expectations in 8.5.7a, children's expectations in 8.5.7b, and children's hopes in 8.5.7c..

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

6. Grade attainment

The dependent variable is zero for children who have never been to school; 0.5 for those who completed pre-school or who went to school but never completed a grade; 1 for those who have completed grade 1 (whether they are still in school or not); 2 for those who have completed grade 2, and so on. The age range is 6-15, except when examining occupational expectations and aspirations, which data is only available for 11-15 year olds.

In model 8.6.1 the explanatory variables are sex, age, the number of children aged 0 to 15 in the household, and wealth quintile dummies. In model 8.6.2 I add parental education and belonging to a female-headed household. The latter is not significant and is dropped. In model 8.6.3 I add the social connection variables. Whether the primary caregiver is a recent migrant (**recent migrant**) and whether the family has some or many friends, as opposed to none (**some/many friends**) are significant, and so are kept in subsequent models. Model 8.6.4 adds income. Model 8.6.5 adds dummies for the slum areas. I test for interaction effects between sex and other variables, and am unable to reject a hypothesis that they are jointly zero, so there is no need for separate models for boys and girls. In model 8.6.6 I add the child's height-for-age and whether he or she is in good health. In models 8.6.7a, b, and c, I add dummies for occupational expectations and aspirations (**parents' expectation** in 8.6.7a, **child's expectation** in 8.6.7b, and **child's hope** in 8.6.7c). Since the results are largely similar – the expectation or aspiration of high status employment is associated with higher grade attainment – in the main text I report only 8.6.7a.

In model 8.7 I try a simple test of interactions between wealth and expectations. I divide the sample into four groups according to whether their wealth is low (Q1, Q2, Q3) or high (Q4, Q5), and whether or not parents expected children to become high status employees. The low-expectation, low-wealth group had lowest educational attainment, and the high-expectation, high-wealth group had the highest. The other two groups (low-expectation, high-wealth and high-expectation, low-wealth) were in the middle and not significantly different from each other. Replacing parents' expectations with children's aspirations does not change this result.

I check whether using the second wealth index (AI2) or different parental education variables affects these results, using models 8.6.5 and 8.6.6a. There are no major changes from replacing AI1 with AI2 in these models, nor with replacing the education of the most educated parent with mother's education or father's education.

Table 54. Linear regression results for grade attainment

Model	8.6.1	8.6.2	8.6.3	8.6.4	8.6.5	8.6.6a	8.6.6b	8.6.6c	8.6.7
sex	0.47 ***	0.47 ***	0.54 ***	0.47 ***	0.51 ***	0.77 ***	1.07 ***	0.78 ***	0.91 ***
age	0.55 ***	0.56 ***	0.54 ***	0.56 ***	0.54 ***	0.47 ***	0.39 ***	0.50 ***	0.47 ***
children aged 0 to 15	-0.09 *	-0.06 †	-0.14 *	-0.07 †	-0.12 *	-0.05	-0.07	-0.07	0.34
Q2 or Q3	0.40 **	0.37 **	0.29 †	0.35 **	0.33 †	0.48 *	0.25	0.43 †	
Q4	0.91 ***	0.79 ***	0.59 **	0.74 ***	0.52 **	0.69 **	0.57	0.61 *	
Q5	1.49 ***	1.26 ***	1.33 ***	1.18 ***	1.21 ***	1.39 ***	1.14 **	1.44 ***	
parents' education		0.09 ***	0.10 ***	0.09 ***	0.11 ***	0.14 ***	0.14 ***	0.15 ***	0.15 ***
female headed		-0.03							
belong to an organization			0.02						
relatives in area			0.30 †						
relatives in Dhaka			0.14						
some/many friends			0.36 *		0.36 *	0.51 *	0.24	0.46 *	0.58 **
know a leader			0.21						
recent migrant			-0.34 *		-0.33 *	-0.28	-0.04	-0.26	-0.28
non-migrant			0.28						
income				0.02 *	0.04 *	0.02	-0.02	0.01	0.02
Korail					-0.26	-0.27	-0.69 *	-0.51 *	-0.28
Lalbag					0.26	0.15	0.37	0.19	0.37
Begunbari					-0.51 **	-0.36	-0.68 *	-0.43 †	-0.25
Exp/hope: factory						-0.04	0.15	-0.69	
Exp/hope: self-employed						-0.13	0.53	-0.49	
Exp/hope: high status						1.35 ***	1.38 **	0.85 *	
Exp/hope: housewife						0.53	1.60 †	0.52	
Exp/hope: other						0.01	0.28	-0.01	
Low wealth, high exp.									1.27 ***
High wealth, low exp.									0.83 **
High wealth, high exp.									2.09 ***
constant	-3.86 ***	-4.20 ***	-4.61 ***	-4.29 ***	-4.23 ***	-4.77 ***	-3.91 **	-4.61 ***	-4.77 ***
age range	6-15	6-15	6-15	6-15	6-15	11-15	11-15	11-15	11-15
N	1493	1489	917	1488	917	550	286	546	
R ²	0.519	0.541	0.529	0.542	0.538	0.446	0.388	0.454	
Adjusted R ²	0.517	0.538	0.522	0.540	0.531	0.427	0.347	0.436	

Note. The results shown are linear coefficients using ordinary least squares. The expectations/hope variables are based on parents' expectations in 8.6.6a, children's expectations in 8.6.6b, and children's hopes in 8.6.6c.

*Significance: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

I use the Owen value R^2 decomposition (Hüttner and Sunder, 2011) to assess the contribution of groups of variables to the total explained variation. First, I regress the grade attainment variable on age; then I use the **rego** programme in STATA to obtain the R^2 decomposition. The dependent variables are those from model 8.6.5. The results are reported in Table 55. The overall R^2 is 0.24, meaning that these variables explain almost a quarter of the variation in grade attainment-for-age. Of this explained variation, 32% is due to wealth, 21% to parents' education, 21% to location, 12% to social connections (whether the household has some or many friends, and whether the primary caregiver is a recent migrant), 7% to sex, and 6% to income.

Table 55. Decomposition of R^2 for model 8.6.5

variable	coefficient		% contribution to R^2
sex	0.466	***	6.9
children aged 0 to 15	-0.067		1.4
Q2 or Q3	0.250		31.9
Q4	0.445	***	
Q5	1.085	***	
parents' education	0.096	***	20.9
some/many friends	0.221		11.9
recent migrant	-0.300	**	
income	0.034	**	6.5
Korail	-0.265	*	20.6
Begunbari	-0.512	***	
Lalbag	0.234		
constant	-1.376		
n	1021		
overall R^2	0.238		

Appendix 5. Interview guide

The following headings and questions were given to research assistants as a guide for conducting semi-structured in-depth interviews with parents and children.

Interview with parent (preferably primary caregiver)

History of migration and residence. e.g. You said that you and your husband came from Can you tell me about why you moved to Dhaka? Where did you live initially? How was that place compared to here? Why did you move again? Do you plan to return?

General conditions of slum living. e.g. What are the difficulties involved in living in this slum? What takes up your time, and your children's time? What are the task-related problems relating to the (lack of) physical facilities? What about social problems?

School preferences, likes, dislikes. You said the main things you liked about your child's primary school were... Why do you think those things are important?

You said the main things you disliked about your child's primary school were... Why do you think those things are important?

Were there other schools you could have chosen? What do you think were the differences between the different schools?

School decisions. (*If children had private tuition*) Why did you send the child to private tuition? What were the benefits?

(*If children went to school but did not have private tuition*) Was private tuition available? If so, why did the child not go – because of the expense, or were there other reasons? What do you think the benefits would have been? Were there any problems caused by not having private tuition?

Your child(ren) dropped out of school at grade(s) ... How did you (the family) make that/those decision(s)? Who decided? Did he/she attend irregularly before dropping out altogether?

Expectations and aspirations. e.g. Tell me more about your expectations and aspirations for your children. You said you expected them to become ... What makes you think that's likely? Did this affect your decision for the child to stay in school / leave school?

You said you would like them to become... Why would that be good? Do you think it's possible for that to happen? What are the things that might stop it from happening? Did this affect your decision for the child to stay in school / leave school?

Apart from work, what are the benefits of the child going to school? Why are these important? How does school create these benefits?

Interview with child

Can you tell me more about what you liked and disliked about primary school?

Do you think your life would be different if you had stayed in school for longer / dropped out of school earlier? How?

What about your future life? Do you think your schooling will make a difference to your life in future? In work and outside of work?

Tell me more about what you expect and hope to do when you're older. You said you expected to become ... but would like to become What makes you think it's likely you will

become... ? Did this make you want to stay in school longer, or leave school? Are there other types of work that would be better, and that you think schooling would help you get into?

Appendix 6. The CREATE Survey questions

Section 1. Household information

1. Household number
2. Date of interview
3. Name of interviewer
4. Code of interviewer
5. Name of the head of household
6. Father's name of head of household
7. Para name:
8. Village name:
9. Union
10. Upazilla
11. Zilla
12. District
13. Sample school
14. School type (GPS / RNGPS)
15. Data round
16. Full household address (including description of location and contact tel no, if available)

Section 2. Educational information of the household

Applicable for all members of the household

1. Serial id. No
2. Name
3. Sex
4. Age
5. Relationship to household head
6. Literacy level
7. Highest educational qualification

Applicable for 4-15 years old children of the household

8. Educational status

Information about ongoing student:

9. Grade
10. Type of school
11. Sample school (1 = yes, 2 = no)
12. Present at school yesterday

Information about drop-out students:

13. What was the last grade the student completed?
14. What type of school did s/he attend?
15. How many months ago did s/he drop out?
16. Reason for dropping out?

17. Drop out from the sample school? (1 = yes, 2 = no)

For never-enrolled students:

18. Reason for being never enrolled

(For all children aged 4-15)

19. Father's education
20. Mother's education

Section 3. Information about children's health and disability

For all children aged 4-15

1. Child id
2. Name
3. How is the health of the child?
4. Child height
5. Vaccination condition
6. In the last 30 days has s/he suffered from any diseases?
7. If answer is yes then what type of disease?
8. Was s/he absent from school for up to 5 days because of sickness?
9. Did any of the health workers check her/him within last 30 days?
10. Does he play normally like other children?
11. Is the child disabled?
12. If yes, what kind of disability?
13. Level of disability (1 = a little, 2 = some, 3 = serious, 9 = not applicable)
14. Was the disabled child admitted to school?
15. If yes, then does s/he feel that there is any problem with their studies because of their disability?
16. Do the teachers help disabled student in schooling?

Section 4. All educational information for all ongoing students of age 4-15

1. Child i.d. no.
2. Name
3. which grade does he/she study now?
4. Did the child go to pre-primary school before being admitted to the primary school?
5. How many months did s/he attend pre-primary school?
6. How old was s/he when s/he got admitted to the primary school?
7. What is the reason if s/he did not go to the school at the age of 6?
8. What is the reason if s/he went to the school before age 6?
9. Has the child got all the books of this year?
10. How many text books does s/he have?
11. How many work books does the child have?
12. Does the child have necessary pen/ pencil?
13. Does the child have school bag?
14. Does the child have geometric box?

Section 5. Information about the scholarship and the relationship between the school and the house of ongoing students of age 4-15.

(Applicable for those children who have code 1 in section 2 column 8)

1. Child id no.
2. Name
3. What type of scholarship does he get?
4. How much did s/he get from the last phase of the scholarship?
5. What is the reason that s/he got the scholarship before but not now.
6. What is the reason if s/he never got the scholarship?
7. Did any of the teachers visit the child's home last month?
8. Did any of the education officers visit the child's home last 4 months?
9. Did any of the NGO officers visited the child's home last 4 months?
10. Did the parents of the child attend any meeting about the school in the last 4 months?
11. Are any of the members of this family belonging to the SMC?

Section 6: School attendance, repetition, and the information about the progress of the students

(Applicable for ongoing students)

1. Child id no.
2. Name
3. Type of school
4. Reason for enrolling in to this school
5. If s/he has attended a school before, what type of school is the second one?
6. What grade is s/he enrolled in this year?
7. In what grade was s/he in last year?
8. Is s/he in the right grade for his age?
9. What is the reason if s/he does not study in the appropriate grade?
10. How many times s/he has repeated up to now?
11. If s/he has repeated, has it helped in his/her study?
12. What does s/he like about school the most?
13. What does s/he dislike about school the most?
14. Is s/he in the eldest or youngest group of the class?
15. How has s/he performed in class?
16. Was s/he absent from school in the last week?
17. How many days he was absent?
18. What was the reason for his/her absence?
19. Has their rate of absence reduced in a specific month?
20. If the answer is yes then what is the reason?

Section 7. schooling cost, for 4-15 years children (Applicable for ongoing students)

1. Child id no.
2. Name
3. How does the child travel to the school?
4. Distance of the school (km)
5. (*This week/Last week*) transport cost
6. (*This week/Last week*) food cost
7. (*last term*) tuition fees
8. (*last term*) examination fees
9. (*last term*) expenditure for buying exercise books, pen, pencil, etc.
10. (*last term*) private tuition fees
11. (*this year / last year*) total cost for buying text book

12. (*this year / last year*) admission fees / session charge
13. (*this year / last year*) expenditure for school dress
14. What is the main financial source of this expenditure? (1 = family money; 2 = sub-scholarship; 3 = child's own money; 4 = taking loan from relatives; 5 = taking loan from others; 6 = others)

Section 8. use of time in everyday life. Applicable for 4-15 years old ongoing students.

1. Child id no.
2. Name

In a common school day how many hours does s/he spend for the following work:

3. Household work
4. Family earning work
5. Labour for earning
6. For going to school
7. Studying for school
8. Studying with private tutor
9. Studying at home
10. For recreation (playing, watching tv, etc.)
11. Sleeping hour
12. Eating, taking bath and doing other personal work
13. Total time (= 24)

**Section 9. Have the parents of the child done the following work within the last month?
(Applicable for all children)**

1. Child id no.
2. Name
3. Have the child's parents read a newspaper?
4. ... read any letter?
5. ... written any letter?
6. ... made any phone call?
7. ... written any messages on a mobile?
8. ... listened to the radio?
9. ... watched tv?

(Codes: 1 = every day, 2 = once or twice a week, 3 = less than once a week, 4 = not at all)

Section 10: efficacy of the parents. (applicable for all children)

1. Child id no.
2. Name
3. Has the child asked for help on his school work from his parents?
4. If yes, then what do the parents usually do?
5. Do the parents tell the child about the school's importance?
6. Do the parents know about others who have benefited from school?
7. How have they benefited? (1 = doing well in work, 2 = well-behaved, 3 = got confidence, 4 = taking good care of children, 5 = other, 6 = not applicable)
8. Do the parents tell their children about those children who have benefited?
9. Last year did the parents get any kind of support from the following organizations? (1 = village organization, 2 = female organization, 3 = political organization, 4 = religious organization, 5 = sports organization, 6 = social leader)

Section 11: applicable for 4 to 15 years old children who have completed their primary education

(Applicable for those who have class pass code 4 in column 7 and education status code 1 in column 8 in section 2)

1. Child id no.
2. Name
3. Did the child sit for the school final exam in grade five?
4. If no, what was the reason for not taking the exam?
5. How many times has the child sat for the primary school final exam?
6. If yes (to 4), did the child pass the exam?
7. What percentage of marks did s/he get in their last primary school final exam/
8. What percentage of marks does one have to get admitted in to the secondary grade?
9. If s/he gets marks below the necessary marks needed, will s/he sit for the exam again?
10. If no, then what is the reason for not sitting for the exam?
11. After passing the primary level did s/he get admitted in to secondary school?
12. After completing the primary level, what was the reason of not getting admission to the secondary level?
13. What can be done so that s/he can resume their studies?

Section 12: applicable for 4 to 15 years old drop-out students. Write down the name and id no. of those who have code 2 in section 2 column 8.

1. Child id no.
2. Name
3. How many months did s/he attend in pre-school?
4. At what age did s/he start primary school?
5. If s/he started overage, what was the reason?
6. If s/he started earlier what was the reason?
7. Why did he enrol at that particular school?
8. Who had taken the decision for him/her to leave school?
9. At what grade, did s/he drop out?
10. How many days ago did s/he dropout?
11. Did s/he go to the school regularly?
12. If not then what was the reason for irregular attendance?
13. Did s/he ever repeat classes at school?
14. At this moment, What is s/he doing now?
15. Does s/he want to start studying again?
16. If the answer is yes then where does he want to study?
17. If the answer is no, then why doesn't s/he want to study again?
18. What support can be offered so that s/he can go to school again?
19. Who can give him/her that support?

Section 13. applicable for 4 to 15 years old never enrolled children

1. Child id no.
2. Name
3. Why has the child never enrolled for school?
4. Is the head of house of this child, a woman?
5. What is s/he doing now?
6. If s/he is involved in work how much does s/he earn?

7. Does s/he want to go to any kind of school ?
8. If the answer is yes, then what type school does s/he want to go to?
9. If the answer is no then what is his/her barrier?
10. How can the barrier be removed?

Section 14. relation between the school and the household and the education atmosphere of the household (applicable for ongoing and drop out students)

1. Did any household member attend any teacher-parents meeting within the last 12 months?
2. ... go to the school and talk to the teacher or head teacher of the school within the last 12 months?
3. ... give voluntary service to the school within the last 12 months?
4. ... go to the school for any purpose within the last 12 months?
5. Did any teacher or head teacher from the school visit the home within the last 12 months?
6. Did any government officer visit the home within the last 12 months?
7. Did any NGO worker visit the home within the last 12 months?

Section 15. Socioeconomic status of the household (applicable for all households)

8. Religion of the household
9. Ethnicity of the household
10. Main occupation of the head of household
11. Total land of the household (decimals)
12. Monthly household income
13. Last year what was the financial condition of the household (1 = always in need, 2 = sometimes in need, 3 = equal, 4 = surplus)
14. How many reading desks does the household have?
15. How many study chairs does the household have?
16. Does the household have electricity?
17. What is the ventilation condition of the study room?
18. Does the household receive a daily newspaper?
19. Does the household receive a regular weekly or monthly magazine?
20. Does the household have a radio?
21. Does the household have a television?
22. Does the household have a mobile phone?

Appendix 7. The school decisions and aspirations survey

Second survey of primary caregiver (with section S11 addressed to child)
Applicable to households with any children aged 11-15

Section S1. Dwelling and surroundings

1. Do you or someone in this household own this dwelling, or do you rent it?	1 ... own 2 ... rent 3 ... rent free / squatter / other
2. <i>If rented</i> How much is the rent?	_ _ _ _ _ Taka per month
3. Do you feel secure from eviction in this dwelling?	1 ... yes 2 ... no

	8 ... don't know
4. During the rainy season does your dwelling sometimes get flooded?	1 ... yes, often 2 ... yes, sometimes 3 ... no, never 8 ... don't know
5. During the rainy season do the corridors/streets surrounding your dwelling sometimes get water logged / flooded?	1 ... yes, often 2 ... yes, sometimes 3 ... no, never 8 ... don't know
6. How much time per day is spent fetching water? (number of hours)	<div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> number of minutes 995 ... water on premises 998 ... don't know
8. Main material of the roof <i>Observe</i>	1 ... thatch/sod/leaf 2 ... rustic mat/Plastic sheet/polythene 3 ... palm/bamboo 4 ... metal 5 ... wood 6 ... ceramic tiles 7 ... cement 8 ... other (specify) _____
9. Main material of the walls <i>Observe</i>	1 ... cane/palm/trunks/leaf/jute stick/sod 2 ... dirt / mud 3 ... bamboo / bamboo with mud 4 ... stone with mud 5 ... tin sheet 6 ... cement / cement block 7 ... bricks 8 ... other (specify) _____
10. Condition of dwelling <i>Observe and circle all that apply</i>	1 ... cracks/opening in walls 2 ... no windows 3 ... windows with broken/no glass 4 ... visible holes in roof 5 ... incomplete roof 6 ... insecure door 7 ... squatter (jhupri) 8 ... none of the above

Section S2. Assets and perceived financial difficulty

1. Does any member of your household own... <i>Read list and circle all that apply</i>	1 ... watch 2 ... bicycle 3 ... motorcycle or scooter 4 ... rickshaw 5 ... cycle vangari 6 ... CNG / motor rickshaw 7 ... cart 8 ... none of the above
2. Does everyone in your household own shoes (including sandals / slippers)?	1 ... yes 2 ... no
3. How well would you say your household is managing financially these days? Would you say you are ...	1 ... living comfortably 2 ... doing alright 3 ... just about getting by 4 ... finding it quite difficult 5 ... finding it very difficult 8 ... don't know

Section S3. Migration

1. Which district were you born in?	11 ... Dhaka 12 ... Barisal 13 ... Faridpur 14 ... Comilla 15 ... Mymensing 21 ... Chittagong 22 ... Khulna 23 ... Rajshahi 24 ... Sylhet 25 ... Bagerhat 26 ... Bandarban 27 ... Barguna 28 ... Bhola 29 ... Brahmanbaria 30 ... Bogra 31 ... Chandpur 32 ... Chuadanga 33 ... Cox's Bazar 34 ... Dinajpur 35 ... Feni 36 ... Gaibandha 37 ... Gazipur 38 ... Gopalganj 39 ... Habiganj 40 ... Jessore 41 ... Jhalakati 42 ... Jamalpur 43 ... Joypurhat 44 ... Jhenaidah 45 ... Kurigram 46 ... Khagrachari 47 ... Kustia 48 ... Kishorganj	49 ... Laxmipur 50 ... Lalmonirhat 51 ... Madaripur 52 ... Magura 53 ... Meherpur 54 ... Moulvibazar 55 ... Manikgonj 56 ... Munsiganj 57 ... Narail 58 ... Narayanganj 59 ... Noakhali 60 ... Naogaon 61 ... Narsingdi 62 ... Natore 63 ... Nawabgonj 64 ... Netrokona 65 ... Nilphamari 66 ... Pabna 67 ... Panchagarh 68 ... Patuakhali 69 ... Pirojpur 70 ... Rajbari 71 ... Rangamati 72 ... Rangpur 73 ... Shariatpur 74 ... Satkhira 75 ... Sherpur 76 ... Sirajganj 77 ... Sunamgonj 78 ... Tangail 79 ... Thakurgaon 99 ... outside Bangladesh
2. <i>If born outside Dhaka City</i> How many months / years is it since you came to Dhaka? <i>If they have made more than one migration, ask about the most recent time of coming to Dhaka</i>	_ _ _ number of months 998 ... don't know 999 ... not applicable	
3. What was the main reason for coming to Dhaka?	1 ... to find work / better opportunities	

	2 ... lost property due to flooding / land erosion 3 ... failed harvest 8 ... other (specify) _____
4. Which district was the head of household (<i>if different from primary caregiver</i>) born in?	
5. What was the main reason for him/her to come to Dhaka?	1 ... to find work / better opportunities 2 ... lost property due to flooding / land erosion 3 ... failed harvest 8 ... other (specify) _____
6. Do you plan to return to either your district or that of the head of household?	1 ... yes 2 ... no 8 ... don't know / it depends
5. Since living in Dhaka City, have you always lived in this area?	1 ... yes 2 ... no
6. <i>If no to question 5</i> What was the main reason for moving	1 ... eviction 2 ... lower rent 3 ... moved to better area 8 ... other (specify) _____

Section S4. Social capital

1. Are you, or is the head of household, a member of any groups, societies or associations? <i>Circle all that apply.</i>	1 ... savings / credit association 2 ... women's association 8 ... other (specify) _____ 9 ... none of the above
2. Do you have relatives in this area? (within 2km)	1 ... yes 2 ... no
3. Do you have relatives elsewhere in Dhaka?	1 ... yes 2 ... no
4. How many friends would you say you have in this area?	1 ... a lot 2 ... some 3 ... few / none
5. "People in this neighbourhood are willing to help if you need it." Do you...	1 ... agree strongly 2 ... agree somewhat 3 ... neither agree nor disagree 4 ... disagree somewhat 5 ... disagree strongly
6. <i>If any child has ever enrolled in school</i> What kind of help did you need from others for your child/children to go to school? <i>Circle all that apply. If they mention financial help, ask – only money, or other things as well?</i>	1 ... occasional financial help 2 ... continual financial help 3 ... a place to study 4 ... help with homework 5 ... providing books or other materials 6 ... free tuition 8 ... other (specify) _____
7. <i>If no child has ever enrolled in school</i> What kinds of help from others would have made it easier for your child/children to go to school? <i>Circle all that apply. If they mention financial help, ask – only</i>	1 ... occasional financial help 2 ... continual financial help 3 ... a place to study 4 ... help with homework 5 ... providing books or other materials

money, or other things as well?	6 ... free tuition 8 ... other (specify) _____
8. Where do you think you could find information about schools / education in this area? <i>Circle all that apply</i>	1 ... NGO offices 2 ... at a government school 3 ... at a private school 4 ... NGO community / social workers 5 ... newspapers / books 8 ... other (specify) _____
9. Do you know any local community, political or slum leaders personally?	1 ... yes 2 ... no
10. If yes to 9 Please describe your relationship to them (codes?)	

Section S5. Applicable to 11-15 year old children who dropped out (or finished primary schooling and did not enter secondary)

In Part A and B below, write down the name and ID of those who have code 2 in section 2 column 8 and are aged 11 or over.

Part A

Id no	Name	How far was the primary school? (km)	How did he / she travel to school?	Did <i>name</i> take private tuition?	If yes,		
					How many hours per week?	How much did you spend on tuition?	Who gave the tuition?
1	2	3	4	5	6	6	7

4 How did he / she travel to school: walking =1, bicycle =2, motorbike =3, rickshaw =4, CNG / car =5, bus =6, don't know / can't remember = 7, other =8

5 Did *name* take private tuition: yes =1, no =2, don't know / can't remember =8

7 Who gave the tuition: teacher at the child's school =1, teacher at another school =2, relative =3, other = 8

Part B

Id no	Did <i>name</i> reach the level of education you expected?	What do you <u>realistically expect</u> <i>name</i> to do when he or she is older (adult)?	Are there any reasons why <i>name</i> might not be able to do the job/livelihood that you expect?	If yes Name the main reason	What would you <u>like</u> <i>name</i> to do when they are older (adult)?	In terms of <i>name</i> 's future job/livelihood, what do you think is the most important benefit of going to school?	What about other benefits, that aren't to do with work?
1	8	9	10	11	12	13	14

8 Did *name* reach the level of education you expected? No, higher than expected =1, No, less than expected =2, Yes, as I expected =3, don't know / other = 8

10 Are there any reasons why *name* might not be able to do the job / livelihood that you expect? 1 =yes, 2 =no

11 Name the main reason. Few jobs available =1, high competition for jobs =2, need connections to get jobs =3, need more education to get job =4, other =8 (specify)

13. In terms of *name's* future job/livelihood, what do you think is the most important benefit of going to school? reading instructions =1, writing bills/receipts =2, calculating bills / change =3, self-discipline =4, correct behaviour/obedience =5, other (specify) =8.

14. What about other benefits, that aren't to do with work? avoid being cheated when buying/selling goods or renting property =1, reading news / books =2, understand contracts / official documents =3, household budgeting =4, being respected in community =5, being respected by future husband/wife/family members =6, other (specify) =8.

Section S6. Applicable to 11-15 year old children who are in secondary school

In Part A and Part B below, write down the name and ID of those who are in secondary school (see section 2) and are aged 11-15

Part A

Id no	Name	When <i>name</i> went to primary school, approximately how much did you spend on:				How far was the school? (km)	How did <i>name</i> travel to primary school?	Did <i>name</i> take private tuition?	If yes,		
		Tuition fees (per term)	Books	Other materials	Transport				How many hours per week?	How much did you spend on tuition?	Who gave the tuition?
1	2	3	4	5	6	7	8	9	10	11	12

8 How did he / she travel to school: walking =1, bicycle =2, motorbike =3, rickshaw =4, CNG / car =5, bus =6, don't know / can't remember = 7, other =8

9 Did *name* take private tuition: yes =1, no =2, don't know / can't remember =8

12 Who gave the tuition: teacher at the child's school =1, teacher at another school =2, relative =3, other = 8

Part B

Id no	What level of education do you <u>realistically expect</u> <i>name</i> will be able to	Are there any reasons why <i>name</i> might not achieve the level of education	If yes Name the main reason	What do you <u>realistically expect</u> <i>name</i> to do when he/she completes education?	Are there any reasons why <i>name</i> might not be able to do the	If yes Name the main reason	What would you like <i>name</i> to do when they are older (adult)?	In terms of <i>name's</i> future job/livelihood, what do you think is the most important benefit of	What about other benefits, that aren't to do with work?
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	attain?	you might expect?			job/livelihood that you expect?			going to school?	
1	13	14	15	16	17	18	19	20	21

13 What level of education do you realistically expect *name* will be able to attain? *Emphasise realistic expectation rather than hope, desire.*

None =1, some non-formal =2, some madrasa =3, some primary =4, complete primary =2, some secondary =3, complete secondary =4, higher =5, don't know =6, other =8 (specify)

14, 17 Are there any reasons ... Yes =1, no =2, don't know =3

15 Name the main reason. No schools available nearby =1, cost of schooling =2, child has to do paid work =3, child has to do unpaid work in the home =4, school not important beyond a certain level =6, other =8 (specify)

18 Name the main reason. Few jobs available =1, high competition for jobs =2, need connections to get jobs =3, need more education to get job =4, other =8 (specify)

Section S7. Applicable to children aged 11-15 who are still in primary school

Write down names and ID of children aged 11-15 who are still in primary school (see section 2)

Id no	Name	What level of education do you <u>realistically expect</u> <i>name</i> will be able to attain?	Are there any reasons why X might not achieve the level of education you might expect?	If yes Name the main reason	What do you expect X to do when he/she completes education?	Are there any reasons why X might not be able to do the job/livelihood that you expect?	If yes Name the main reason	What would you like X to do when they are older (adult)?	In terms of <i>name's</i> future job/livelihood, what do you think is the most important benefit of going to school?	What about other benefits, that aren't to do with work?
1	2	3	4	5	6	7	8	9	10	11

3 What level of education do you realistically expect *name* will be able to attain? *Emphasise realistic expectation rather than hope, desire.*

None =1, some non-formal =2, some madrasa =3, some primary =4, complete primary =2, some secondary =3, complete secondary =4, higher =5, don't know =6, other =8 (specify)

4. 7 Are there any reasons ... Yes =1, no =2, don't know =3

5 Name the main reason. No schools available nearby =1, cost of schooling =2, child has to do paid work =3, child has to do unpaid work in the home =4, school not important beyond a certain level =6, other =8 (specify)

8 Name the main reason. Few jobs available =1, high competition for jobs =2, need connections to get jobs =3, need more education to get job =4, other =8 (specify)

Section S8. Applicable to never enrolled children

Write down names and ID of all children aged 11-15 with code 99 in Section 2, Column 8

Write down names and IDs of all children aged 7-15 with code 00 in Section 2, Column 6					
Id no	Name	What do you <u>realistically expect</u> name to do when he or she is older?	Are there any reasons why X might not be able to do the job/livelihood that you expect?	<i>If yes</i> Name the main reason	What would you <u>like</u> name to do when they are older (adult)?
1	2	3	4	5	6

4 Are there any reasons why *name* might not be able to do the job / livelihood that you expect? yes =1, no =2, don't know =3

5 Name the main reason. Few jobs available =1, high competition for jobs =2, need connections to get jobs =3, need more education to get job =4, other =8 (specify)

Section S9. Child work – all children aged 11-15

What work did children aged 11-15 do to make money during the last month?

It may be necessary to work out earnings by asking for daily income and calculating; similarly for expenses. Ask primary caregiver and, if they do not know, the child him or herself. The same child may take up more than one line if he or she does more than one income generating activity.

Id no	Name	Activity	How many days did you do this activity?	How many hours per day on average?	How much did you earn from this activity on average during the last 30 days (Tk.)?
1	2	3	4	5	6

3. Activity rubbish picking =1, domestic servant/maid =2, porter =3, handicrafts =4, no paid work =9, other =8 (specify)

(removed?) **Section S10. Children's attitudes towards school – applicable to all children aged 11-15 who have ever enrolled in school**

Write down the name and ID of all children aged 11-15 who have code 1 or 2 in section 2, column 8

Id no	Name	What did you like about the primary school / NGO centre you attended?	What did you dislike about the primary school / NGO centre you attended?	Do you think you have benefitted from going to primary school, in terms of your life now? (Please specify how)	What about, in terms of working, in the future?	And do you think there will be other benefits in the future?
1	2	3	4	5	6	7

Section S11. Children's expectations and aspirations – all children aged 11-15

Write down the name and ID of all children aged 11-15. These questions should be addressed to the child him or herself, not the caregiver or household head.

Id no	Name	Are you working now?	When you are 18 do you expect to be in paid work?	If yes in column 4 What type of work?	If no in column 4 What do you expect to be doing?	What would you like to do, if you could choose?
1	2	3	4	5	6	7

3. Are you working now? Yes =1, No =2

4. When you are 18 do you expect to be in paid work? Yes =1, No =2

5. What type of work? Emphasise *realistic* expectation

6. What do you expect to be doing? Emphasise *realistic* expectation. Housewife / unpaid work in the house =1, study =2, unemployed =3, other =8

7. What would you like to do, if you could choose? Emphasise *hope, desire, aspirations*